Florida National Scenic Trail
Visitor Assessment

Florida National Scenic Trail by St. Marks NWR 2014

2014

Presented to:
National Forests in Florida, U.S.D.A. Forest Service
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Bin Wan, Ramesh Paudyal, Carolyn Huntley, Taylor Stein

University of Florida, School of Forest Resources and Conservation

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Executive Summary

The University of Florida's School of Forest Resources and Conservation (SFRC) began a collaborative visitor assessment project for the Florida National Scenic Trail (FNST) with the U.S. Forest Service (USFS) and the Florida Trail Association (FTA) in June of 2003. The purpose of the study is twofold. First, researchers are striving to determine reliable use estimates of annual trail visits to 29 segments of the FNST. Second, researchers are also gathering information on who FNST visitors are in order to develop a continual understanding of why they visit the trail. Following baseline data collection from 2003-2013, 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 presents the results of a visitor assessment and analysis of visitor characteristics for the period June 1, 2013 – May 31, 2014. In addition to the FNST visitor assessment, this report will also describe how FNST visitors are different than hikers to other Florida trails that are comparable to the FNST in terms of hikers' demographic and recreation characteristics. It will also explore hikers' perception of conflict on multiple use trails open to hikers, bicyclers, and horseback riders.

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.

2013-2014 Results

Estimation of Trail Visits

The FNST is primarily a footpath covering the length of Florida; however several segments of the FNST are multiple-use. Therefore, two annual estimates are reported. The first estimate is *pedestrian* visits only, which includes hikers, walkers, joggers, and runners. The second estimate includes visitors who do not fall into the pedestrian category. These visitors are categorized as *other* users and include 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 2013-2014 study season, the FNST received an estimated 355,317 visits of which 52% were estimated to be pedestrian visits and 48% were estimated to be other visits.

Total estimation of annual visits: 355,317

- Total pedestrians: 185,982
- Total other users: 169,335
- Total estimated summer use (June-September): 33,516
- Total estimated fall/spring use (October-May): 321,801

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 355,000 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.

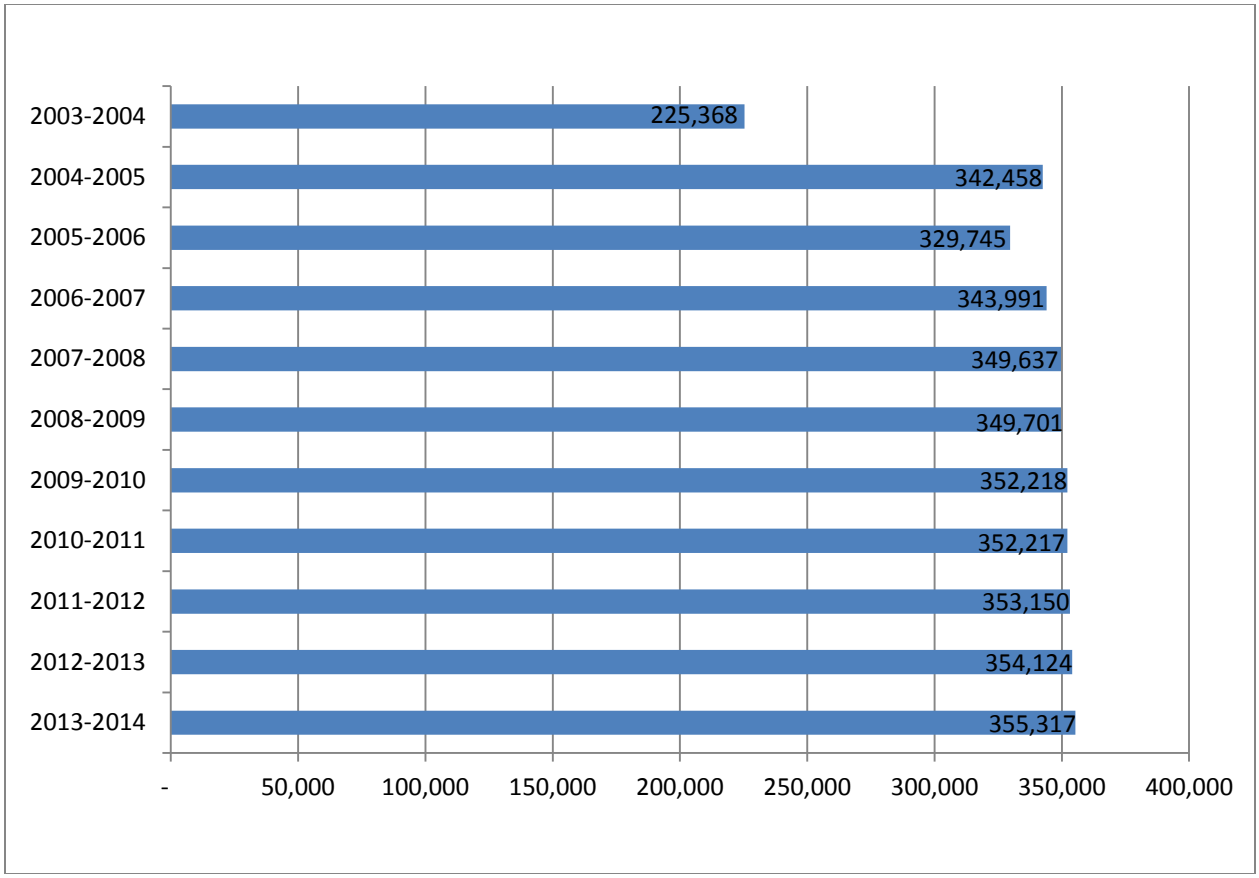

Figure 1. Annual use of the Florida National Scenic Trail 2003-2014

Visitor Questionnaires

With the objective of learning more about the characteristics of FNST and similar non-FNST visitors of multiple use trail in terms of their socio-demographic, trip characteristics, level of trip satisfaction, and visitor interaction and conflict, researchers conducted on-site exit interviews at four study sites from June 1, 2013 through May 31, 2014 (n=44). The summary of the visitor characteristics are as follows.

Participant Trip Characteristics

- 85% of respondents from FNST and 52% of respondents from non-FNST were repeat visitors
- 39% of FNST respondents and 52% of non-FNST respondents spent (1) hour or less on the trail
- 34% of all respondents travelled alone, whereas 16% travelled in a group of five or more visitors, typically family member or friends

Participant FNST Experience & Knowledge

- 62% of FNST respondents and 39% of non-FNST respondents stated they had a perfect experience
- 34% of all the respondents reported a nearly perfect experience from their trip
- 67% of the FNST respondents and 48% of the non-FNST respondents reported hiking/walking as the primary activity

- 46% of the FNST respondents and 29% of the non-FNST respondents learned about the trail from their friends or family

Visitor Demographics

- FNST visitors and non-FNST visitors did not differ statistically in terms of demographic characteristics
- 56% of all respondents were female
- 60% of respondents were married
- 73% of respondents had no children living at home
- 59% of respondents were college graduate or had a higher education level
- 40% of respondents were employed full time and 19% were retired
- 91% of respondents were white
- 47% of respondents reported an annual household income (pre-tax) of $60,000 or more

Visitor interaction and conflict

- Except in certain cases, FNST respondents and non-FNST respondents did not differ in terms of visitor interaction and conflict.
- In general respondents disagreed that they had recreation conflict with other user groups; however, they expressed neutral responses regarding need of separate trail for hikers, bicyclers, and horseback riders.
- 62% of all respondents encountered one to ten other visitors (or visitor groups) during their trip to multiple use trails, and less than 5% encountered more than 20 visitors (visitor groups)
- 84% of all respondents encountered hikers and 50% of the respondents encountered bicyclers.
- 50% of FNST respondents and 5% of non-FNST respondents encountered horseback riders during their trip.

Introduction

The 1,000-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, 2013. Beginning in June 2008, data collection re-started at previously monitored sites, allowing an initial investigation of visitor use trends along re-sampled sections of the Florida Trail. As these monitoring efforts continue over the next several years, management will be provided with scientifically collected information to assist in monitoring if and how FNST visitation is changing as well as if and how the characteristics of trail visitors is changing. As a result, programmers, managers, and volunteers will be provided with information to assist them in creating and enhancing recreation opportunities along the FNST, as well as assisting the Forest Service in justifying the need to acquire appropriate funding for FNST management (Loomis, 2000).

Study Purpose and Objectives

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

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, trip characteristics, level of trip satisfaction
3. Determine whether there is intra- and inter- visitor conflicts in the multiple use sections in the FNST and non-FNST.

This report presents the visitor estimates for June 1, 2013 through May 31, 2014 at six identified survey sites through which the Florida National Scenic Trail traverses. In addition, information related to visitor characteristics was collected through the completion of on-site questionnaires at four multiple use trails at FNST and Non-FNST.

Methodology

Survey Sections

The Florida National Scenic Trail is composed of 44 sections. Using these 44 sections as a foundation for survey efforts, UF researchers identified 29 survey sites within 44 sections that would likely serve as exit and/or entrance points for hikers. These areas tended to correspond closely to public lands with established trailheads, which attract more hikers and serve as efficient survey sites. Preliminary research then categorized these sites as receiving high, medium, or low use (Table 1). 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). 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	14 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 to 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 2013-2014 study season, researchers collected visitor use data from seven study sites (Figure 2):

1. Apalachicola National Forest
2. Big Cypress National Preserve
3. Ocala National Forest
4. Osceola National Forest
5. St. Marks NWR & Rail Trail

6. Tosohatchee State Preserve

Information on individual sites where visitor surveys were gathered can be viewed in Appendix IX. These six study sites contained a total of 10 access points (Appendix III) that where monitored throughout the study year.

How

To obtain reliable use estimates of visitors on the FNST during the 2013-2014 study season, researchers combined two different methods: (1) personal observations, and (2) mechanical counters with supplemental materials.

The following sections describe each technique.

Personal Observations

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

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

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

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

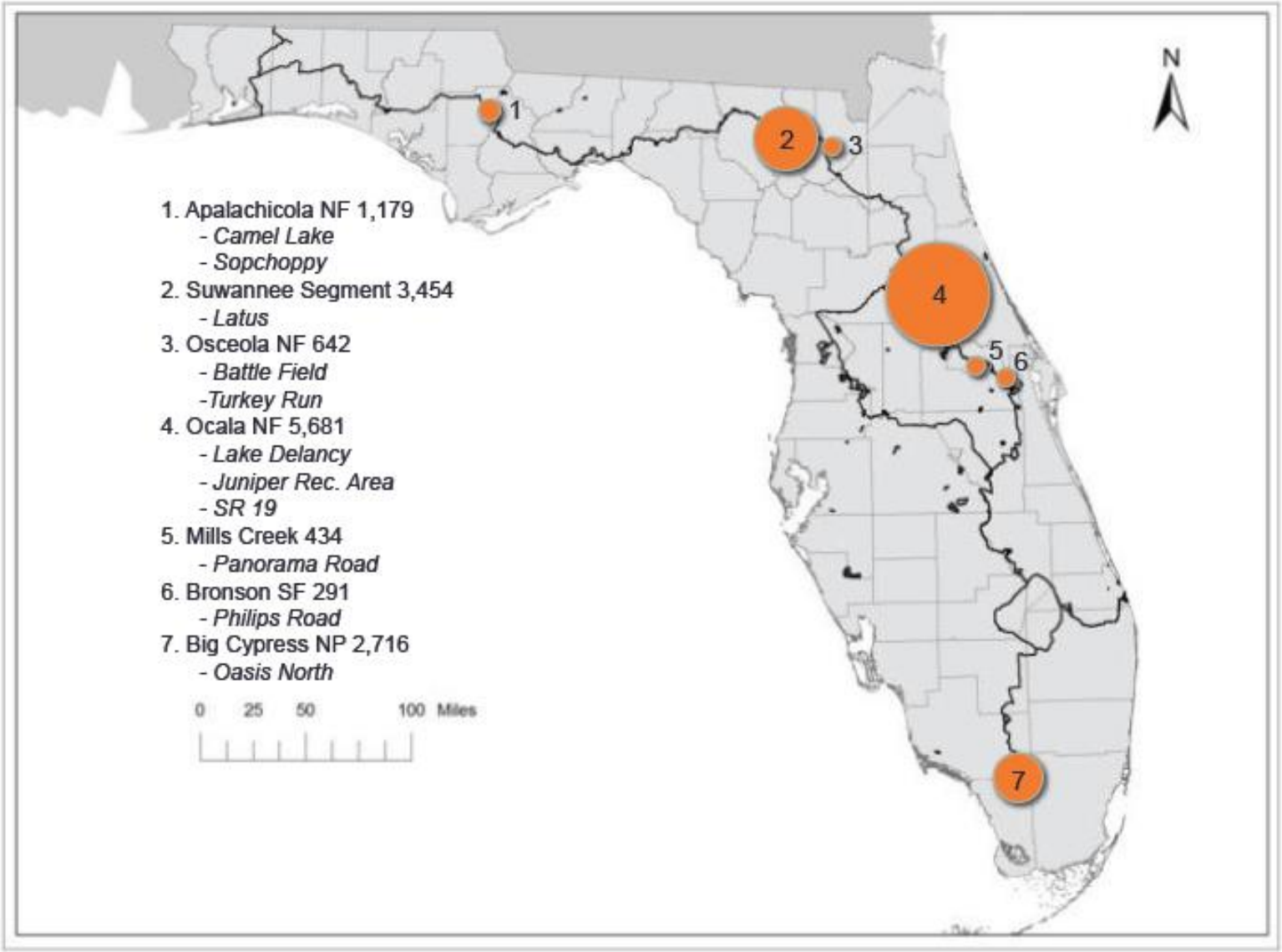

Figure 2. Florida National Scenic Trail 2013-2014 Study Sites and Use Estimate

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 10 counters where installed for the 2013-2014 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 waterproof aluminum, and operates on 4-D batteries that usually last 12 months. The counter is installed on a tree or wooden post and is aligned with a reflector 20-75 feet across the trail creating an invisible beam. When a hiker, wildlife, or other user breaks the beam, it is recorded with no differentiation between user types. The counter has an ability to provide researchers with hourly counts for up to 420 days equating to approximately 25,000 counts. However, due to its recording liability issues, the Diamond Traffic TCC-4420 has been terminated out of use by the end of study year 2011.

The TrailMaster 1550 active infrared eye was also installed at several research sites over the course of the study year. This counter gathers data in the same fashion as the Diamond Traffics eye; however it records data slightly different from diamond. The counter is cased with waterproof hard plastic, and operates on 4-C batteries that usually last 5 months in winter but only 3 months in summer. 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. TrailMaster 1550 has been proven as reliable counting equipment through many years in the field and is becoming the sole type of trail counter that will be used for FNST visitor assessment study.

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.

In 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 2013-2014 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.

Defining Visitor Characteristics

In order to meet the second and third objectives of the study, researchers conducted on-site exit interviews during June 1, 2013 through May 31, 2014 at four study sites. Survey sites were selected based on their characteristics of accommodating hikers, bikers and horseback riders on a single trail, thus they are multiple use trails in the state of Florida. Two sites selected are currently a part of the FNST and two sites are not. Each trail's characteristics are detailed in Table 3.

Table 3. Trail Characteristics of the Selected Surveys Sites

Trail or Trailhead	Location	FNST	Length (miles)	Trail Type	Path Type
Chacala	Paynes Prairie Preserve State Park	No	6.5	Loop	Soil
Gainesville-Hawthorne State Trail	Boulware Springs	No	16	Linear	Paved
Cassia/SR 44	Seminole State Forest	Yes	7.8	Linear	Soil
Powerline Road (N.)	Tosohatchee Wildlife Management Area	Yes	10.0	Linear	Soil

Visitor Questionnaires

Sites were surveyed using a random sampling procedure where every second or third person, or party, was approached to participate. A total of 53 visitors were approached to complete the survey of which 8 declined and 1 was incomplete resulting in 44 completed surveys for an 83% response rate. The survey was given to one consenting participant 18 years of age or older within every group exiting the trail. For groups that were larger than seven people, one person for every seventh person in the group was asked to complete the survey. The questionnaire took approximately 10-15 minutes of the participant's time to complete, and contained 51 questions pertaining to frequency of trail use, trip expenditures, user conflicts primary activities, group size, trip length, trip satisfaction, trip motivation, 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*

Nijk l = number of times counted during shift *l* on day type *k* at access point *i* of site

Xijklm = the count on *m*th repetition for sampling period *l* on day type *k* at access point *i* of site *j*

Xijkl= 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)

Xijk = 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)

Xjk=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:

M1 = number of weekend days in the season

M2 = number of weekday days in the season

Xi1 = average daily count for site *i* for weekend days.

Xi1 = 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 missing within the month, data were estimated by:

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

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

Step 3: Corrected Monthly Count
In order to better estimate the actual number of users, each access point with a counter had an average correction factor that was multiplied by the access point's monthly total. This was done at the end of a season when all the correction factors were averaged together. Every counter is calibrated regularly, and correction factors were produced by dividing the actual number of counts by the registered number of counts. The average correction factor accounts for every time the access point was calibrated since installation. If a counter had to be replaced, correction factors were averaged as normal unless there are known differences between the counters or conditions. Outlying correction factors were omitted if the cause of the unusually high/low factor was known.

Step 4: Final Monthly Data
To account for the same entry and exit by pedestrians at a site, an access point's corrected monthly count was divided by two.

Step 5: Apply Access Point Averages
Once final monthly counts were formed, access points within the same classification were grouped together from all study years regardless of location. Next, an average for that access point classification was formulated. This average was then applied to current access points where data was not collected.

Step 6: Final Seasonal Data
All final monthly data was summed up within the season.

Step 7: Trail-Wide Estimate
Final annual data was then added to previous annual data, omitting sites being re-sampled for the current year report, to formulate a trail-wide visitation estimate.

Visitor Questionnaires

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

For open-ended comments found in the on-site survey, two researchers independently reviewed the comments and placed them into categories thought to provide a descriptive overview of the comment. These categories and 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 v22.0.

Results

Visitor Use Estimates

This section describes the results from mechanical counters and on site observations during the 2013-2014 study year. Seasonal trail visitor estimations were derived by totaling:

- Data from previous years' research (June 2003- May 2013), and
- Results from this year's research (June 2013– May 2014)

The 2013-2014 study year has one of the highest estimated visits to the Florida Trail. There were 1,193 more estimated visits to the FNST in 2013-2014 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.

Ten Trail Master 1550 infrared counters were used in 2013-2014 research season to collect visitation data. All of these counters performed reasonably well throughout the year, with some mechanical issues due to aging equipment or other causes. Among the 10 counters, 4 counters (Sopchoppy, SR19, Tosohatchee, and Turkey Run) experienced mechanical failure or forest prescribed burn damage during the study year, resulting in some data loss at these locations. In all cases where the counter was damaged, or experienced mechanical failures, each unit was replaced immediately when the incidents were noticed during the monthly site visit to avoid further data loss. More detailed information on the missing data for each of these sites can be found in Appendix VIII.

Estimate of Summer Visits

The estimated use for all seven study sites during the summer of 2013 was 1,793 (Table 3). The study sites consisted with five high-use and one medium-use sites. The highest use occurred at Ocala National Forest with 562 visits. Tosohatchee had the second highest estimated with 332 visits. The lowest visitation occurred at Apalachicola National Forest with 125 total visits for the summer. Osceola National Forest was the next lowest with 129 summer visits.

Table 4. Estimate of Summer Visitation at 2013-2014 Study Sites

Use Type	Site	Foot Traffic	Other Traffic	Total Use
High	Ocala National Forest	562		562
	Tosohatchee State Preserve	332		332
	Big Cypress National Preserve	331		331
	St. Marks NWR & Rail Trail	314		314
	Apalachicola National Forest	125		125
Medium	Osceola National Forest	129		129
Subtotals		***1,793***	***0***	***1,793***
Total				**1,793**

Total estimated summer use for the entire Florida National Scenic Trail during the summer of 2013 was 33,516 (Table 4), whichwere 554 fewer visits than the 2012 summer estimate. Visits to FNST at Ocala and Apalachicola National forests continuously experienced 19% and 22% decrease respectively along with 11% decline of use at Cross Florida Green way, while visits to FNST at Big Cypress and Osceola experienced 7% and 45% gain respectively. In addition, visits to Tosohatchee also indicated a remarkable gain 86%. The highest use site for all 29 segments in summer 2013 was Little Big Econ State Forest with a total of 8,755 estimated visits, which were just 4 fewer visits than previous summer. The lowest use site was Rice Creek estimated to have19 visits followed by Eglin AFB with 54 visits.

Table 5. Estimates of Summer Trail-wide Visitation 2013-2014

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	4,491	4,264	8,755
	Gulf Islands National Seashore	2,430	3,380	5,810
	Cross Florida Greenway	4,755	624	5,379
	Withlacoochee State Forest & Rail Trail	883	2,519	3,402
	St. Marks NWR & Rail Trail	314	1,229	1,543
	Blackwater River State Forest	682		682
	Suwannee	569		569
	Ocala National Forest	562		562
	Highlands (S65B to US 98)	537		537
	Three Lakes WMA	483		483
	Green Swamp WMA	366		366
	Tosohatchee State Preserve	332		332
	Big Cypress National Preserve	331		331
	Twin Rivers State Forest	291		291
	Econfina WMA	283		283
	Seminole State Forest	252		252
	Goldhead Branch State Park	234		234
	Apalachicola National Forest	125		125
	Total high use estimate	***17,920***	***12,016***	***29,936***
Medium	Bull Creek WMA	199		199
	Kissimmee River/Avon AFB	177		177
	Mills Creek	124		124
	Aucilla WMA	92		92
	Osceola National Forest	129		129
	Etoniah State Forest	78		78
	Pine Log State Forest	72		72
	Eglin AFB	54		54
	Total medium use estimate	***925***		***925***
Low	Bronson State Forest	78		78
	Rice Creek	19		19
	Total low use estimate	***97***		***97***
Subtotals		**20,271**	**13,245**	**33,516**
Total			**33,516**	

Estimation of Fall/Spring Visits

The estimated use for all six study sites during the fall/spring of 2013-2014 was 12,494 (Table 5). The Ocala National Forest and Big Cypress National Preserve received the highest (5,370) and the second highest (2,808) estimated number of visits respectively during the fall/spring season. The lowest use area during the fall/spring was Osceola National Forest with 433 visits. Tosohatchee (1096 visits) was the next lowest use area studied.

Total estimated 2013-2014 fall/spring visitation for the entire Florida National Scenic Trail was 321,801, which was 1,747 more visits than previous year's estimate of 320,054 (Table 6) following the consecutive gain from 2009-2010. Except visitation decreases at Highland and Osceola National Forest (3% and 33% respectively), use levels at all other sites experienced same or variable degree of gain from the fall/spring of 2012-2012.The most

noticeable visitation change to FNST were occurred at Tosohatchee State Preserve and Big Cypress National Preserve with respectively 213% and 22% more hikers than previous fall/spring, followed by the increases at Apalachicola National Forest (8%), Blackwater River State Forest (6%), Three Lakes WMA (6%), and Ocala National Forest (1%).

Table 6. Estimate of Fall/Spring Visitation at 2013-2014 Study Sites

Use Type	Site	Foot Traffic	Other Traffic	Total Use
High	Ocala National Forest	5,370		5,370
	Big Cypress National Preserve	2,808		2,808
	St. Marks NWR & Rail Trail	1,574		1,574
	Apalachicola National Forest	1,213		1,213
	Tosohatchee State Preserve	1,096		1,096
Medium	Osceola National Forest	433		433
Subtotals		***12,494***	***0***	***12,494***
Total			**12,494**	

Table 7. Estimate of Fall/Spring Trail-wide Visitation 2013-2014

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	19,195	9,841	29,036
	Gulf Islands National Seashore	8,220	8,643	16,863
	Withlacoochee State Forest & Rail Trail	4,943	8,997	13,940
	Little Big Econ State Forest	7,599	6,116	13,715
	St. Marks NWR & Rail Trail	3,124	10,562	13,686
	Ocala National Forest	5,370		5,370
	Goldhead Branch State Park	5,272		5,272
	Suwannee	3,176		3,176
	Big Cypress National Preserve	2,808		2,808
	Blackwater River State Forest	2,469		2,469
	Seminole State Forest	1,342	449	1,791
	Highlands (S65B to US 98)	1,566		1,566
	Apalachicola National Forest	1,213		1,213
	Three Lakes WMA	1,162		1,162
	Tosohatchee State Preserve	1,096		1,096
	Econfina WMA	1,060		1,060
	Twin Rivers State Forest	883		883
	Green Swamp WMA	810		810
	Total high use site estimate	***71,308***	***44,608***	***115,916***
Medium	Bull Creek WMA	800		800
	Pine Log State Forest	662		662
	Eglin AFB	610		610
	Aucilla WMA	466		466
	Osceola National Forest	433		433
	Kissimmee River/Avon AFB	398		398
	Mills Creek	310		310
	Etoniah State Forest	301		301
	Total medium use site estimate	***3,980***		***3,980***
Low	Rice Creek	280		280
	Bronson State Forest	213		213
	Total low use site estimate	***493***		***493***
Subtotals		***165,711***	***156,090***	***321,801***
Total			**321,801**	

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 355,317 total visits in 2013-2014, 1,193 more visits than in 2010-2011 (Table 7). Fifty two percent of these visits were foot traffic and forty eight percent were other traffic. The most noticeable change of visitation to FNST is observed at Tosohatchee State Preserve, where its use classification climbed to high use site from medium use site due to an overall 171% use increase. In addition, visitations to FNST at Big Cypress National Preserve also showed noticeable increase 18%. However, visits to FNST at Osceola National Forest declined 24%.

Table 8. Estimated FNST Trail-wide Visitation for 2013-2014 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	23,950	10,465	34,415
	Gulf Islands National Seashore	10,650	12,023	22,673
	Little Big Econ St. Forest	12,090	10,380	22,470
	Withlacoochee State Forest & Rail Trail	5,826	11,516	17,342
	St. Marks NWR & Rail Trail	3,438	11,791	15,229
	Ocala National Forest	5,932	0	5,932
	Goldhead Branch State Park	5,506	0	5,506
	Suwannee	3,745	0	3,745
	Blackwater River State Forest	3,151	0	3,151
	Big Cypress National Preserve	3,139	0	3,139
	Highlands (S65B to US 98)	2,103	0	2,103
	Seminole State Forest	1,594	449	2,043
	Three Lakes WMA	1,645	0	1,645
	Tosohatchee State Preserve	1,428	0	1,428
	Econfina WMA	1,343	0	1,343
	Apalachicola National Forest	1,338	0	1,338
	Green Swamp WMA	1,176	0	1,176
	Twin Rivers State Forest	1,174	0	1,174
	Total high use site estimate	***89,228***	***56,624***	***145,852***
Medium	Bull Creek WMA	999	0	999
	Pine Log State Forest	734	0	734
	Eglin AFB	664	0	664
	Kissimmee River/Avon AFB	575	0	575
	Osceola National Forest	562	0	562
	Aucilla WMA	558	0	558
	Mills Creek	434	0	434
	Etoniah State Forest	379	0	379
	Total medium use site estimate	***4,905***	***0***	***4,905***
Low	Rice Creek	299	0	299
	Bronson State Forest	291	0	291
	Total low use site estimate	***590***	***0***	***590***
Subtotals		***185,982***	***169,335***	***355,317***
Total			**355,317**	

Comparison of Site Visitation

From the data collected over the past nine years of research (Figure 3), the site with the highest visitation along the Florida Trail is Lake Okeechobee with an estimated 203,970 annual visits (45% were hikers). The next highest use can be found at Marjorie Harris Carr Cross Florida Greenway with an estimated 34,415 annual visits (70% were hikers). The lowest use sites are Bronson State Forest with 291 annual visits (100% hikers) and Rice Creek WMA with 299 annual visits (100% hikers).

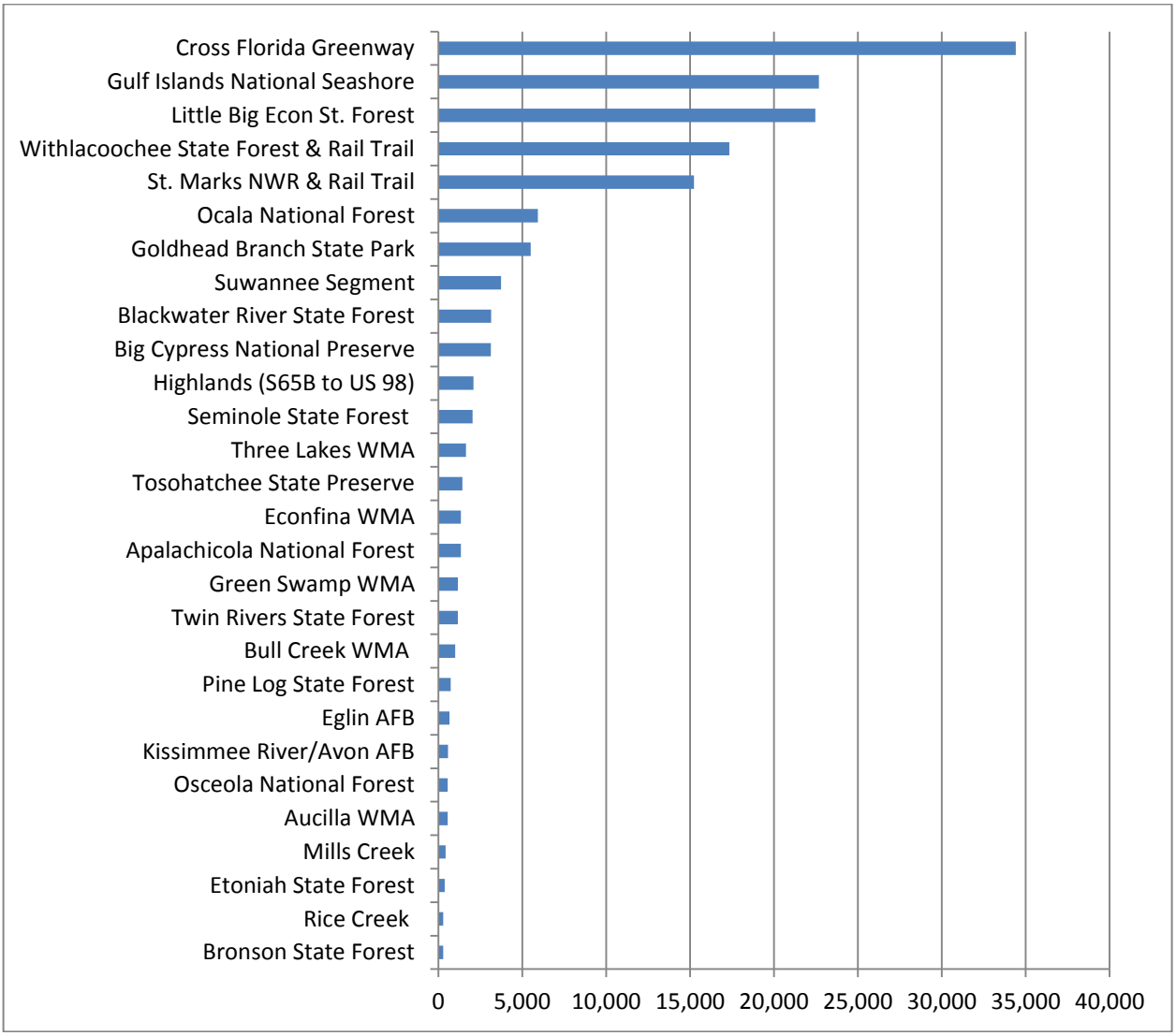

Figure 3. Comparison of Estimated Visitor Use on the FNST 2013-2014 in All Research Sites

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 four 2013-2014 study sites: Seminole State Forest, Tosohatchee Wildlife Management Area, Paynes Prairie State Preserve, and Boulware Springs Park. Of the 44 completed surveys, the largest percentage of surveys were completed at Paynes Prairie (41%), followed by Boulware Springs (30%), and Seminole State Forest (27%). The least amount of surveys was completed at Tosohatchee Wildlife Management Area (2%) as shown in Figure 4. Thus, 29% of the responses were completed in the FNST and rest were completed in the Non-FNST multiple use trials.

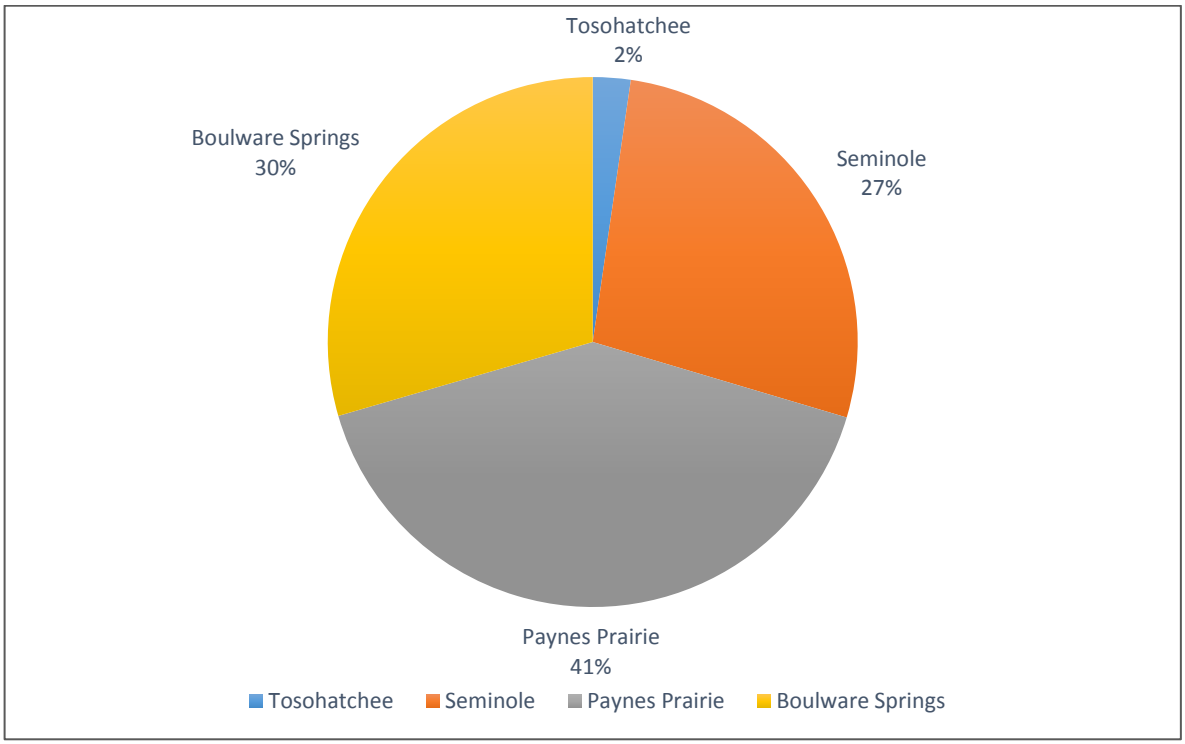

Figure 4. Distribution of Completed Surveys (n = 44)

Demographic Characteristics

In the multiple use trails, visitors were more likely to be female (55.8%) than male (44.2%). They were mostly married (60.0%) and most had no children at home (72.5%). Most of the respondents were white (90.5%) and were at least college graduate (58.9%). More than half of the respondents (55.8%) were employed either full time or part time, 18.6% were retired, and 23.3% were full time students. About half of the respondents (47.3%) earned $60,000 or higher, whereas 15.8% of the respondents earned below $30,000 (Table 9). The FNST and Non-FNST visitors did not differ significantly in terms of any of the demographic characteristics.

Table 9. Socio-Demographic Information of the Respondents

Demographics	Sample Average (%)	Percentage of Respondents by Trail Type*	
		FNST	Non FNST
Gender (n=43)			
Male	44.2	46.2	43.3
Female	55.8	53.8	56.7
Marital status (n=43)			
Married	60.0	38.5	60.0
Single	30.0	38.5	30.0
Widowed	14.0	23.1	10.0
Children in household (n=40)			
0	72.5	63.6	75.9
1	7.5	9.1	6.9
2	15.0	27.3	10.3
3	0.0	0.0	0.0
4 or more	5.0	0.0	6.8
Race/ethnicity (n=42)			
White	90.5	92.3	89.7
Hispanic	0.0	0.0	0.0
African American	2.4	0.0	3.4
Asian American	4.8	7.7	3.4
Hawaiian/American Indian	2.4	0.0	3.4
Education (n=43)			
High School or below	11.6	15.4	10.0
Some College	30.2	23.1	33.3
College Graduate	33.3	30.8	32.6
Some graduate school or above	25.6	30.8	23.3
Employment (n=43)			
Employed Full-time	39.5	53.8	33.3
Employed part-time	16.3	7.7	20.0
Unemployed	4.7	7.7	3.3
Full-time homemaker	7.0	7.7	6.7
Retired	18.6	15.4	20.0
Full-time student	23.3	23.1	23.9
Part-time student	7.0	0.0	10.0
Income (n=40)			
Less than 30,000	15.8	8.3	19.2
30,000 - 60,000	36.8	50.0	30.8
60,000 - 90,000	28.9	33.3	26.9
90,000 or more	18.4	8.3	23.1

**No statistical differences were observed for difference between FNST and Non-FNST respondents in terms of demographic characteristics.*

Trip Characteristics and Experience

More than half of the respondents (61.4%) were repeat visitors (Table 10). Of the repeat visitors, 11.1% did not visit that particular trailhead within the past year, whereas 55.5% visited that particular trailhead at least seven times in the past year. About half of the respondents spent one hour or less on the trail, and about the same number of visitors spent few hours to half a day, whereas about 5% of the respondents spent more than one day on the trail. A majority of the respondents (71.4%) hiked one to five miles on the trail, and 19.0% of the respondents hiked five to ten miles on the trail. About half of the respondents (45.5%) travelled in a group of two or three visitors, whereas 36.6% travelled alone and 15.9% travelled in a group of five or more visitors. Three-quarters (75.0%) of the respondents had at least one male in the group and an almost equal proportion (77.3%) had at least one female in the group. Of the total respondents, about one-quarter (24.4%) travelled with family, whereas 19.5% travelled with friends and 4.9% travelled with an organized group.

Although, FNST visitors and Non-FNST visitors were not different in terms of demographic characteristics, they differed in terms of some of the trail use characteristics (Table 10). For example, multiple use sections of the FNST are more likely to receive returning visitors than the similar section on the non-FNST ($p \leq 0.05$). Also, among the returning users, FNST visitors visited the trail more frequently than the Non-FNST visitors ($p \leq 0.05$). Likewise, the FNST visitors spent more time on the trail ($p \leq 0.05$) than the Non-FNST visitors; however, the Non-FNST visitors hiked farther on the trail than the FNST visitors ($p \leq 0.1$). FNST and Non-FNST visitors did not differ in terms of group size, group type, and proportion of males and females on the group.

Table 10. Comparison of FNST and Non-FNST Visitors by Trail Use Characteristics

Trail Use Charcteristics	Sample Average (%)	Percentage of Respondents by Trail Type		Chi-Square Significance
		FNST	Non FNST	
Trail use (n=44)				**
First time user	38.6	15.4	48.4	
Returning user	61.4	84.6	51.6	
Past year use frequency of returning users (n=27)				*
None	11.1	9.1	12.5	
Low (1-6)	33.3	9.1	50.0	
High (7-20)	25.9	45.5	12.5	
Very High (>20)	29.6	36.4	25.0	
Time spent (n=44)				**
1 hour or less	47.7	38.5	51.6	
Few hour - half a day	45.5	38.5	48.4	
One whole day	2.3	7.7	0.0	
More than one day	4.5	15.4	0.0	
Miles hiked (n=42)				*
Less than a mile	7.1	0.0	9.7	
1 - 5 miles	71.4	90.9	64.5	
5 - 10 miles	19.0	9.1	22.6	
> 10 miles	2.4	0.0	3.2	
Group size (n=44)				
1	34.1	38.5	32.3	
2	27.3	23.1	29.0	
3	18.2	15.4	19.4	
4	4.5	7.7	3.2	
5 or more	15.9	15.4	16.1	
Number of males (n=44)				
0	25.0	23.1	25.8	
1	54.5	53.8	54.8	
2	6.8	7.7	6.5	
3	2.3	7.7	0.0	
4	0.0	0.0	0.0	
5 or more	11.4	7.7	12.9	
Number of females (n=44)				
0	22.7	38.5	16.1	
1	36.4	30.8	38.7	
2	25.0	23.1	25.8	
3	2.3	0.0	3.2	
4	9.1	7.7	9.7	
5 or more	4.5	0.0	6.5	
Group type (n=44)				
Alone	36.6	41.7	34.5	
Friends	19.5	16.7	20.7	
Family	24.4	25.0	24.1	
Organized group	4.9	8.3	3.4	
Friends & Family	12.2	0.0	17.2	
Other	2.4	8.3	0.0	

***significant at 5% level, *significant at 10% level*

Respondents learned about the particular section of the trail from different sources (Table 11). About 35% of the respondents heard from friends or family, whereas 25.0% learned by living nearby or seeing the trail and 13.6% learned from the website. Hiking/walking was reported as the primary activity by more than half of the respondents (53.5%) followed by jugging/running (11.6%), and camping (7.0%). Viewing scenery was a primary activity for less than 5% of the respondents.

Respondents were asked to rate their trail experience on a scale of one to ten, with ten being a perfect experience (table 11). Among the respondents, 45.5% had a perfect experience (a rating of 10) and about 34.1% had near the perfect experience (rating of 8 to 9). FNST visitors and Non-FNST visitors did not differ in terms of source of trail information and recreation experience.

Table 11. Comparison of FNST and Non-FNST Visitors by Source of Trail Information and Recreation Experience

Trail Information & Recreation Expereince	Sample Average (%)	Percentage of Respondents by Trail Type*	
		FNST	Non FNST
Source of trail information (n=44)			
Friends or family	34.1	46.2	29.0
Live nearby and saw the trail	25.0	15.4	29.0
Website	13.6	7.7	16.1
Don't remember	7.1	4.5	13.6
Brochure	6.8	0.0	9.7
Don't remember	4.7	7.7	3.3
Guidebook	4.5	7.7	3.2
Magazine	2.3	7.7	0.0
Other	9.5	16.7	6.7
Primary activity (n=44)			
Hiking/walking	53.5	66.7	48.4
Jogging/running	11.6	8.3	12.9
Camping	7.0	8.3	6.5
Biking	4.7	0.0	6.5
Viewing scenery	4.7	0.0	6.5
Other	18.6	16.7	19.4
Rating of recreation experience (n=43)			
10	45.5	61.5	38.7
9-9.9	6.8	15.4	3.2
8-8.9	27.3	15.4	32.3
7.9 or less	20.5	7.7	25.8

**No statistical differences were observed for difference between FNST and Non-FNST respondents in terms of all variables given.*

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, respondents were presented with twelve possible attractors (pull factors) of a recreation area and were asked to rate how important each of attractors were in choosing their destination. Responses were measured on a scale of 1 (not at all important) to 5 (very important). "Wilderness and undisturbed nature" was reported as the most important site attraction (mean = 4.4) followed by "good environmental; quality of air, water, and soil" (mean = 4.2) and "chance to see wildlife/birds." "Good small game hunting" (mean =1.4) and "good game hunting" (mean = 1.4) were reported as the least important site attractors.

FNST visitors and non-FNST visitors differed in terms of certain site attraction features. For example, the site being "close to home" was more important for the FNST visitors than the non-FNST visitors ($p \leq 0.05$). Likewise, "interesting small towns" and "historical, military, or archeological sites" were less important for the FNST visitors than the non-FNST visitors ($p \leq 0.01$).

Table 12. Comparison of FNST Visitors and Non-FNST Visitors by importance of Destination Attractors

Site Attraction Items[#]	n	Overall Mean	Mean Responses by Trail Type		ANOVA Significance
			FNST	Non-FNST	
Wilderness and undisturbed nature	43	4.4	4.5	4.4	
Good environmental quality of air, water, and soil	43	4.2	4.2	4.2	
Chance to see wildlife/birds	43	4.2	4.1	4.3	
Easy access to the area/being easy to get to	42	3.9	4.0	3.8	
To see the natural water features	43	3.7	3.8	3.7	
Close to home	43	3.7	4.3	3.5	**
Available parking	43	3.5	3.5	3.5	
Good camping	42	2.9	2.8	3.0	
Interesting small towns	41	2.3	1.5	2.8	***
Historical, military, or archeological sites	43	2.2	1.4	2.5	***
Good fishing	43	2.1	2.2	2.0	
Local crafts or handiwork	43	1.6	1.4	1.7	
Good big game hunting	43	1.4	1.3	1.4	
Good small game hunting	43	1.4	1.3	1.4	

*[#]Responses were measured in a scale of 1 (Not at all important) to 5 (Very important). ***significant at 1% level, **significant at 5% level*

Recreation Experience Preferences

Visitors were provided with a list of recreation experience preferences and were asked the importance of each experience for the trip of that particular day. Enjoying scenery (mean=4.7) and experience nature (mean=4.6) were reported as the most important recreation experience preferences (motivation or push factors) for visiting the trail that day (Table 13). Meeting new people was reported as the least important motivation factor (mean = 2.8) followed by sharing skills and knowledge with others (mean = 3.0) and to use their own equipment (mean = 3.4).

FNST visitors and non-FNST visitors did not differ in terms of almost all the recreation experience preferences, except one (enjoy the scenery). Enjoying scenery was more important for the non-FNST visitors than the FNST visitors ($p \leq 0.05$). However, in overall, results indicated that FNST visitors and non-FNST visitors of multiple use trails were not different in terms of recreation experience preferences.

Table 13. Comparison of FNST Visitors and Non-FNST Visitors by Recreation Experience Preferences

Recreation Experience Preference	n	Overall Mean	Mean Responses by Trail Type		ANOVA Sgnificance
			FNST	Non-FNST	
To enjoy the scenery	43	4.7	4.4	4.8	**
To experience nature	43	4.6	4.6	4.6	
To get exercise	43	4.4	4.4	4.4	
To explore the area	43	4.4	4.2	4.5	
To enjoy the smells and sounds of nature	43	4.4	4.4	4.4	
To be close to nature	42	4.4	4.3	4.5	
To get away from usual demands of life	43	4.3	4.4	4.2	
To feel healthier	43	4.3	4.4	4.3	
To relax physically	42	4.2	4.0	4.2	
To experience new and different things	43	3.9	4.0	3.8	
To learn more about the nature	43	3.7	3.5	3.8	
To be with people who enjoy the same things I do	43	3.7	3.8	3.6	
To experience solitude	43	3.7	4.0	3.5	
To do something with my family	43	3.4	3.4	3.4	
To be on my own	43	3.3	3.2	3.3	
To be away from people	43	3.2	2.9	3.3	
To be with members of my group	43	3.2	2.9	3.4	
To learn about natural history of the area	43	3.1	2.6	3.3	
To have thrills and excitement	42	3.0	3.1	2.9	
To test my skills and abilities	43	3.0	3.0	3.1	
To use my own equipment	43	2.9	2.8	3.0	
To share my skills and knowledge with others	42	2.8	2.6	2.8	
To meet new people	43	2.5	2.2	2.6	

*Responses were measured in a scale of 1 (Not at all important) to 5 (Very important). **significant at 5% level*

Visitor Interactions

Participants were asked to report if they encountered other visitors during their time on the trail, and how many and what type of visitors were encountered. Almost a quarter of participants did not encounter anyone on the trail (23.8%), while the rest of the respondents encountered at least one other visitor or group of visitors (Table 14). A majority of respondents (61.9%) encountered 1 to 10 other visitors on the trail and about 5% encountered more than 20 visitor (or visitor groups). Among the respondents, 84.4% encountered other hikers, whereas half of the respondents encountered bikers. Horseback riders were encountered by 18.8% of the respondents and 6.3% of the respondents encountered 'other' visitors such as fishers and campers (Table 14). Significantly higher percentages of FNST visitors reported encountering horseback riders than the Non-FNST visitors ($p \leq 0.01$).

Table 14. Number and Type of Visitor Encounters on Multiple Use Trails

	Sample Average (%)	Percentage of Respondents by Tail Type		Chi-Square Test Significance
		FNST	Non FNST	
Number of encounter (n=43)				
0	23.8	23.1	24.1	
1 – 10	61.9	61.5	62.1	
11 – 20	9.5	7.7	10.3	
21 – 30	4.8	7.7	3.4	
Type of encounter (n=43)				
Hikers	84.4	90.0	81.8	
Bicyclers	50.0	50.0	50.0	
Horseback riders	18.8	50.0	4.5	***
Others	6.3	10.0	4.5	

****significant at 1% level*

In general respondents from both the FNST and Non-FNST did not agree with statements that described conflict with other user groups (mean < 2.0). However, respondents reported almost neutral responses for items expressing certain trails should be open to only a specific user type. FNST visitors and non-FNST visitors did not differ in terms of visitor conflict and perception about interaction with other user groups.

Table 15. Visitor Conflict and Perception about Interaction with Other User Groups

Statements[#]	n	Overall Mean	Mean Responses by Trail Type[*]	
			FNST	Non-FNST
Horseback riders bother me	43	1.7	1.5	1.7
Bicyclers bother me	42	1.9	1.9	1.9
Hikers bother me	43	1.4	1.2	1.5
I find it undesirable to meet horseback riders	43	1.8	1.5	1.9
I find it undesirable to meet bicyclers	43	1.9	1.8	1.9
I find it undesirable to meet hikers	42	1.4	1.5	1.3
Certain trails should be open to horseback riders only	43	2.9	2.5	3.0
Certain trails should be open to bicyclers only	43	2.8	2.5	2.9
Certain trails should be open to hikers only	43	2.9	3.3	2.7

[#]*Responses were measured in a scale of 1 (strongly disagree) to 5 (strongly agree)*
[*]*No statistical differences were observed for difference between FNST and Non-FNST respondents in all items.*

Respondents were asked how much of their trip enjoyment was changed as a result of an encounter with other user groups. In general, respondents reported that encountering hikers increased their enjoyment more than by encountering horseback riders and bicyclers (Table 16). Enjoyment from encountering horseback riders was higher among FNST visitors than the non-FNST visitors ($p \leq 0.1$).

Table 16. Types of Visitor Encountered and Impact on Recreation Experience

Statements[#]	n	Overall Mean	Mean Responses by Trail Type[#]		ANOVA Significance
			FNST	Non-FNST	
Encountering horseback riders	43	3.1	3.5	2.9	*
Encountering bicyclers	42	3.1	2.9	3.1	
Encountering hikers	43	3.5	3.5	3.5	

[#]Responses were measured in a scale of 1 (greatly reduced my enjoyment), 2(reduced my enjoyment), 3(Neither reduced nor increased my enjoyment), 4 (increased my enjoyment), and 5 (greatly increased my enjoyment).
**significant at 10% level*

Respondents were also asked for their perception about other user groups. In general, respondents reported that encountering other user groups was not a problem. However, respondents reported an even lesser problem from the hikers than the horseback riders and bicyclers. FNST and non-FNST visitors did not differ from each other in terms of their reported problem from encountering with other user groups (Table 17).

Table 17. Respondent's Perception about Other User Groups

Statements[#]	n	Overall Mean	Mean Responses by Trail Type[*]	
			FNST	Non-FNST
Horseback riders are too destructive	43	1.9	1.8	2.0
Horseback riders ride unsafely	42	1.7	1.6	1.8
Horseback riders behave in a discourteous manner	43	1.8	1.6	1.8
Horseback riders pass unsafely	43	1.8	1.6	1.9
Bicyclers are too destructive	43	1.9	1.8	1.9
Bicyclers ride unsafely	43	1.9	1.8	2.0
Bicyclers behave in a discourteous manner	43	1.7	1.8	1.7
Bicyclers pass unsafely	43	1.9	1.8	1.9
Hikers are too destructive	43	1.6	1.8	1.5
Hikers hike unsafely	43	1.5	1.5	1.5
Hikers behave in a discourteous manner	43	1.5	1.5	1.6
Hikers pass unsafely	43	1.5	1.5	1.6

[#]Responses were measured on a scale of 1 (not at all a problem) to 5 (very serious problem)
[*]No statistical differences were observed for difference between FNST and Non-FNST respondents in all items.

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, what benefits they are seeking, and their potential conflict with other users of multiple use trails. This information can be used to continue to provide quality recreation opportunities in a variety of natural settings along the Trail.

Visitor Counts

The 2013-2014 study year has the highest estimated visits to the Florida Trail since 2003. The total estimate exceeds 355,000. Since all study sites have now been researched at least once, and fifteen sites have been studied twice, it is confident to say that this year's estimate is a fair reflection of the approximate number of Florida Trail users. The visitation during 2013-2014 suggests a consistent use trend for FNST visitation in spite of the economic slow time for the nation. Furthermore, the 2013-2014 estimates also suggest that the trend of increasing use is continuing during the fall/winter while visits during summer are declining.

Researchers collected visitor counts on the FNST using observations and infrared counters. The accuracy and ease of use of the infrared counters make them the preferred method for collecting data on FNST visitors when observers cannot be present. The Diamond Traffics infrared eyes had been relatively reliable and consistent in the past study years. However, they are showing instability on the performance due to aging, which in turn adds to the difficulty to analyze data, the cost of operation and maintenance, and ultimately the toll on accuracy of data. Based on the overall cost, reliability, and accuracy, we are completely replacing all Diamond types with TrailMasters with new purchases. Those new TrailMaster 1550 units purchased in 2014 were essential in collecting data over the last two study years since more counters than expected were lost due to wear and tear, and forest prescribed burns.

Visitor Surveys

Collecting visitor surveys helps to complete the process of assessing FNST visitors and the factors that drew them to the Trail. Respondents reported that the most important motivation factors to visit the trail were to enjoy scenery, experience nature, get exercise, and explore the area. Also, a majority of visitors considered wilderness and undisturbed nature, good environmental features (e.g., air, water, and soil), and wildlife/birds viewing to be important in the Trail. These findings suggest that managers should provide a high quality of natural environmental settings while providing the basic recreation facilities as well. Satisfaction from the trail experience was very high among both the FNST and non-FNST visitors, with almost half of the respondents reporting a perfect experience. Among trail activities, hiking/walking was the primary activity for more than half of the respondents.

The major focus of this report is on and the potential an level of conflict on multiple use trails. Taking visitor surveys from both the FNST and non-FNST multiple use trails, this study has compared between FNST visitors and non-FNST visitors in term of demographics, trip characteristics, and visitor interaction. Except in the case of certain trip related characteristics (e.g., time spent and miles hiked on the trail), visitors from FNST and non-FNST multiple use trails did not differ in demographic characteristics and most of the other recreation related characteristics (e.g., group size, group type, primary activity, and recreation experience preference) as well as visitor interaction and conflict.

Results indicate that there is no serious visitor conflict on the multiple use trails. Although user conflict was not significant, interaction with hikers is more acceptable than the interaction with the bikers and horseback riders. No significant difference between FNST visitors and non-FNST visitors indicate that findings from our long term study of FNST visitors could be useful to understand the visitor characteristics and recreation preferences of the visitors from the trails other than FNST and manage the recreation services and facilities as preferred.

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APPENDIX I: 10 Year Study Schedule

2003-2004

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

2004-2005

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

2005-2006

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

2006-2007

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

2007-2008

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

2008-2009

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

2009-2010

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

2010-2011

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

2011-2012

Apalachicola National Forest
Big Cypress National Preserve
Bronson State Forest
Mills Creek
Ocala National Forest
Osceola National Forest
Suwannee Segment

2013-2014

Apalachicola National Forest
Big Cypress National Preserve
Ocala National Forest
Osceola National Forest
St. Marks NWR & Rail trail
Tosohatchee State Preserve

APPENDIX II: Protocol for Classifying Access Points

Protocol for Classifying Access Points

Throughout the study year, researchers get to know all the FNST access points within a site regardless of whether or not a counter is installed. Researchers talk to land managers, FTA personnel, and visitors who know the area well to get an idea of the type of use at each trailhead. They also randomly visit all access points throughout the year to take notes on the number of cars in the parking lot and the number of people in the area. Data collected from infrared counters provide continuous counts for selected survey sites. However, there are often more access points within a site than there are infrared counters. To compensate for these implications, access points that do not have infrared 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, 14 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 2013-2014

Monitored Access Points (2013-2014)

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

Twin Rivers State Forest
1. Black Unit

Withlacoochee State Forest
1. River Junction

Aucilla WMA
1. CR 14

APPENDIX IV: Observation Log

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

Notes (include weather and where you sat):

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

APPENDIX V: 2013-2014 Counter Locations

2013-2014 Counter Locations

Apalachicola National Forest

- Bradwell Bay West: Heading south on FR 314 for 4 mile from FR 13, counter located 150 yards east from trailhead on FR 314.
- Sopchoppy: Heading east from FR 329 at Sopchoppy River Bridge onto FT, counter located about 200 feet from road.

Big Cypress

- Oasis North: Counter located about 1 mile north of the Oasis Visitors Center near the end of runway.
.

Ocala National Forest

- Juniper Springs Recreation Area: Counter located about ¼ mile in on the FT section going east from the FT sign on the entrance road.
- State Road 19: From parking area on SR 19 passed CR 445A, counter located ¼ on west Florida Trail.
- Lake Delancy: Turn from SR19 onto FR 66 towards west. Counter located 150 yards from the FT sign on the north side of FR 66 cross from Lake Delancy Recreation Area.

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.

St. Marks NWR & Rail Trail

- Shepard Spring: Heading south on County Road 365 from US 98 and turning into gated FR214; then turn left heading north on to FR 213; when meeting FR 200 turning right towards east; at second intersection turning right onto FR 210. Following the road to Florida Trail sign. Counter is located on the east side of road 50 yards.

Tosohatchee State Preserve

- Woodbridge/Powerline Road: Heading east on Powerline Road till the road begins to curve; parking in the park lot 21 and crossing the wooded bridge, counter is located 45 yards on the right.

APPENDIX VI: 2013-2014 Seasonal Calibration Factors

Table 18. 2013-2014 Calibration Factors

Sites	Access Points	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May
Apalachicola NF	Bradwell Bay W.	1	1	1	1	1	1	1	1	1	1	1	1
	Sopchoppy	1	1	1	1	1	1	1	1	1	1	1	1
Big Cypress NP	Oasis North	1	1	1	1	1	1	1	1	1	1	1	1
Ocala NF	Juniper	1	1	1	1	1	1	1	1	1	1	1	1
	Lake Delancy	1	1	1	1	1	1	1	1	1	1	1	1
	SR19	1	1	1	1	1	1	1	1	1	1	1	1
Osceola NF	Battle Field	1	1	1	1	1	1	1	1	1	1	1	1
	Turkey Run	1	1	1	1	1	1	1	1	1	1	1	1
St. Marks NWR	Shepard Spring	1	1	1	1	1	1	1	1	1	1	1	1
Tosohatchee SP	Woodbridge	1	1	1	1	1	1	1	1	1	1	1	1

APPENDIX VII: On-Site Survey

Florida Outdoor Recreation Visitor Study

Version 2: Tosohatchee (or other multiple use trails).

To be completed by surveyor if interview given on-site:

Surveyor: _____ **Date: _____**

Site: _____ **Time: _____**

Access Point: _____

SECTION A: CURRENT AND PAST HIKING EXPERIENCE

1. Was this your first time on this particular trail? ____Yes (Go to question 4) ____ No (Go to question 2)

2. In what year did you make your first visit? _____

3. 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 (#___)

4. About how long did you spend on the trail?
   ____1 hour or less ____Half a day ____More than 1 day (_____number of days)
   ____A few hours ____One whole day

5. If you spent more than 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
   [] I live in the area

6. Approximately how many miles did you travel on the trail during this visit?
   [] Less than a mile [] 3-5 miles [] More than 10 miles (# of miles _____)
   [] 1-2 miles [] 6-10 miles

7. **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 _____

8. Including yourself, how many people were you with?
   _____Total number of people (___#males, ___#females)
   _____Number of people under 18

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

10. How did you 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 _____

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

12. If you did not rate your trail experience as a 10, why not?
    _____

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

SECTION B	TRAIL AND TRAIL ORGANIZATIONS IN FLORIDA

For this section we would like to understand what you know about trails and trail organizations in Florida.

14. What is the name of the trail you are now hiking on? _____
    [] If "FNST" → **Go to question 15**

    [] If correct alternative name for trail → Ask if they know any other names
    If yes and say FNST, **go to question 15**
    If no, incorrect or on Payne's Prairie, **go to question 16**
    [] If incorrect, "no" or "I don't know" or on Payne's Praire → **Go to question 16**

15. Other than this trail, have you hiked any other sections of the Florida National Scenic Trail?
    [] Yes → Please name the sections(s) hiked: _____
    [] No
16. Are you familiar with the Florida Trail Association?
    [] Yes → If yes, how did you learn about the Florida Trail Association? (check all that apply)
    [] Friends or family [] Newspaper article
    [] Website, please specify _____
    [] Guidebook [] Brochure
    [] Travel agent [] Don't remember, not sure
    [] Magazine, please specify _____
    [] Roadside signs
    [] Other, please specify _____
    [] No

17. Are you a member of the Florida Trail Association?
    [] Yes → If yes, how long have you been a member?
    [] 1 year or less [] 6-10 years
    [] 2-5 years [] More than 10 years
    [] No, but have been a member in the past for about _____years
    [] No, not at all

SECTION C	RECREATION EXPENDITURE AND SUBSTITUTE

Now we would like to learn about your recreation expenditures and preferred alternative activities.

18. Was visiting the FNST a sole or major purpose of your trip from home?
    [] Yes
    [] No, but it was one of many equally important reasons
    [] No, it was just an incidental stop or spur of the moment decision
19. Approximately how long did you drive from your home (or hotel) to this trail?
    One-way distance _____ (miles)
    One-way travelling time ___/ ____ (hours/min)

20. What type of vehicle did you use to travel to this trail? (Check one)
    [] Full-size Pick-up/SUV [] Small Pick-up/SUV [] Small Car
    [] Medium-sized Car [] Large Car/Van

21. Was this vehicle a hybrid? [] Yes [] No

22. How many people travelled in the same vehicle with you? _____# of people (including yourself)

23. Can you tell us how much money you spent on the following items in this trip? If you are in a multiple day trip, please provide the amounts you expect to spend on each items.

Items	**[] Expenditure so far OR [] Expected expenditure**
Fees/Stamps/Entrance	$
Transportation (gas, etc.)	$
Restaurants/bars	$
Groceries	$
Hiking equipment and supplies	$
Lodging (hotel, campground)	$
Guide service	$
Souvenirs/gifts	$
Miscellaneous	$

24. If you could not hike on this section of trail on a typical day, what would you do instead? **(Check one)**
    [] Go to another trail in Florida for hiking. If so, how many miles (one way) from your residence? _____ _____**(Go to question 25)**
    [] Go out of state for hiking. If so, how many miles (one way) from your residence? _____ **(Go to question 25)**
    [] Go somewhere else in Florida for another activity. If so, how many miles (one way) from your residence? _____ **(Go to question 28)**
    [] Stay home **(Go to NEXT SECTION)**
    [] Go to work **(Go to NEXT SECTION)**

25. If you decided to hike somewhere else,
    Which trail would you prefer to use? Name or location_____
    How long would you spend hiking there? _____/_____ (days/hrs)
    How much out of pocket money would you expect to spend? ($)_____

26. In comparison to your alternate hiking site, how would you rate the expenses in this section of FNST?
    [] More exensive by approximately $_____
    [] Less expensive by approximately $_____
    [] About the same

27. In comparison to your alternate hiking site, how would you rate the following for this section of the FNST?

Proximity	1 (Very far)	2	3	4	5 (Very close)
Environmental quality/site attraction	1(Poor)	2	3	4	5 (Excellent)
Facilities/services	1(Poor)	2	3	4	5 (Excellent)

(Go to NEXT SECTION)

28. If you decided to go somewhere else in Florida for another activity, other than hiking,
    What would be your preferred alternative activity? _____
    How much time would you spend doing that activity? _____/_____(days/hours)
    How much out of pocket money would you expect to spend? ($)_____

(Please hand the second set of pages to the visitor to fill out on their own.)

SECTION D	RECREATION EXPERIENCE PREFERENCE AND BENEFITS

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

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

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

Experiences	Not at all important		Neutral		Very Important
To enjoy the scenery	1	2	3	4	5
To relax physically	1	2	3	4	5
To do something with my family	1	2	3	4	5
To get exercise	1	2	3	4	5
To explore the area	1	2	3	4	5
To experience nature	1	2	3	4	5
To be on my own	1	2	3	4	5
To use my own equipment	1	2	3	4	5
To learn about natural history of the area	1	2	3	4	5
To be away from people	1	2	3	4	5
To have thrills and excitement	1	2	3	4	5
To learn more about the nature	1	2	3	4	5
To meet new people	1	2	3	4	5
To test my skills and abilities	1	2	3	4	5
To enjoy the smells and sounds of nature	1	2	3	4	5
To get away from usual demands of life	1	2	3	4	5
To share my skills and knowledge with others	1	2	3	4	5
To be with members of my group	1	2	3	4	5
To be close to nature	1	2	3	4	5
To be with people who enjoy the same things I do	1	2	3	4	5
To experience new and different things	1	2	3	4	5
To experience solitude	1	2	3	4	5
To feel healthier	1	2	3	4	5

31. People see different benefits from their recreation experience. Please indicate your agreement with the following recreation benefits. My recreation experience today will…….

Benefits	Strongly disagree		Neutral		Strongly agree
Reduce health maintenance costs	1	2	3	4	5
Improve outdoor oriented lifestyle	1	2	3	4	5
Increase family or friend bonding	1	2	3	4	5
Provide positive contributions to local-regional economy	1	2	3	4	5
Improve functioning of individuals in family or friends	1	2	3	4	5
Help increase local tourism revenue	1	2	3	4	5
Reduce social isolation	1	2	3	4	5
Improve economic benefits through increased work productivity	1	2	3	4	5
Improve parenting skills	1	2	3	4	5
Help improve local economic stability	1	2	3	4	5

SECTION E RECREATION INTERACTION

Now this section asks about your social interaction with other visitors during your trip to this trail.

32. Not including those in you group, approximately how many other visitors did you encounter during this trip.
[] Zero [] 1-10 [] 11-20 [] 21-30 [] Greater than 30

33. What type of visitors did you encounter frequently? (Mark all that apply)
[] Hikers [] Bicyclers [] Horseback riders [] Others (please specify)_____

34. Please rate the extent to which you agree or disagree with the following statements.

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Horseback riders bother me	1	2	3	4	5
Bicyclers bother me	1	2	3	4	5
Hikers bother me	1	2	3	4	5
I find it undesirable to meet horseback riders	1	2	3	4	5
I find it undesirable to meet bicyclers	1	2	3	4	5
I find it undesirable to meet hikers	1	2	3	4	5
Certain trails should be open to horseback riders only	1	2	3	4	5
Certain trails should be open to bicyclers only	1	2	3	4	5
Certain trails should be open to hikers only	1	2	3	4	5

35. Please rate the extent to which each of the following reduced or increased your overall experience.

Statement	Greatly Reduced Enjoyment	Reduced Enjoyment	Neither Reduced/ Increased My Enjoyment	Increased My Enjoyment	Greatly Increased My Enjoyment
Encountering horseback riders	1	2	3	4	5
Encountering bicyclers	1	2	3	4	5
Encountering hikers	1	2	3	4	5

36. Please rate the extent to which you view the following as a problem.

Statement	Not at all a problem	Somewhat of a Problem	*Neutral*	Serious Problem	Very Serious Problem
Horseback riders are too destructive	1	2	3	4	5
Horseback riders ride unsafely	1	2	3	4	5
Horseback riders behave in a discourteous manner	1	2	3	4	5
Horseback riders pass unsafely	1	2	3	4	5
Bicyclers are too destructive	1	2	3	4	5
Bicyclers ride unsafely	1	2	3	4	5
Bicyclers behave in a discourteous manner	1	2	3	4	5
Bicyclers pass unsafely	1	2	3	4	5
Hikers are too destructive	1	2	3	4	5
Hikers hike unsafely	1	2	3	4	5
Hikers behave in a discourteous manner	1	2	3	4	5
Hikers pass unsafely	1	2	3	4	5

37. What do you consider to be the biggest problem with horseback riders? _____

_____

38. What do you consider to be the biggest problem with bicyclers? _____

_____

39. What do you consider to be the biggest problem with hikers? _____

_____

SECTION F	DEMOGRAPHICS

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.

40. I am [] Male [] Female

41. Which of the following best describes your status?
[] Married [] Divorced
[] Single [] Widowed

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

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

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

44. Are you presently… **(Please mark all that apply)**
[] Employed Full Time
[] Employed Part Time
[] Unemployed
[] Full Time Homemaker
[] Retired
[] Full Time Student
[] Part Time Student

45. If employed part time, how many hours a week do you work? _____hours/week

46. What is your profession or occupation? _____

47. What year were you born? _____

48. What race or ethnic group(s) would you place yourself in? (please mark all that apply)
[] African American
[] Hispanic or Latino
[] Asian American
[] Native Hawaiian or Pacific Islander
[] American Indian or Alaskan Native
[] White

49. What was your approximate total household income, before taxes this past year?
[] Less than $10,000
[] $10,001 to $19,999
[] $20,000 to $29,999
[] $30,000 to $39,999
[] $40,000 to $49,999
[] $50,000 to $59,999
[] $60,000 to $69,999
[] $70,000 to $79,999
[] $80,000 to $89,999
[] $90,000 to $99,999
[] $100,000 or more

50. Zip Code: _____

51. Do you have any comments you would like us to know?

APPENDIX VIII: Individual Site Information

Apalachicola National Forest

Visitor Counter Data

Counter type:

- Bradwell Bay West: TrailMaster Trail Monitor
- Sopchoppy: TrailMaster Trail Monitor

Counter-related problems and solutions:

- Sopchoppy counter's transmitter was manually turned off causing some data loss.

Trail conditions throughout the year:

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

Table 19. FNST Visitation at the Apalachicola NF 2013-2014

Access Pt.	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Total
Camel Lake	2	1	6	6	8	29	35	23	34	18	12	2	173
Sopchoppy	7	4	4	4	25	47	23	26	23	53	21	7	244
Bradwell Bay West	7	3	6	2	16	31	44	9	32	31	4	6	191
FR 150*	8	4	6	7	15	35	30	30	34	40	20	15	244
Bradwell Bay Wilderness*	8	4	6	7	15	35	30	30	34	40	20	15	244
Porter Lake*	8	4	6	7	15	35	30	30	34	40	20	15	244
Monthly Total	39	19	35	32	95	212	192	148	192	223	95	59	1,338

*Estimation calculated through access point averages (Appendix II)

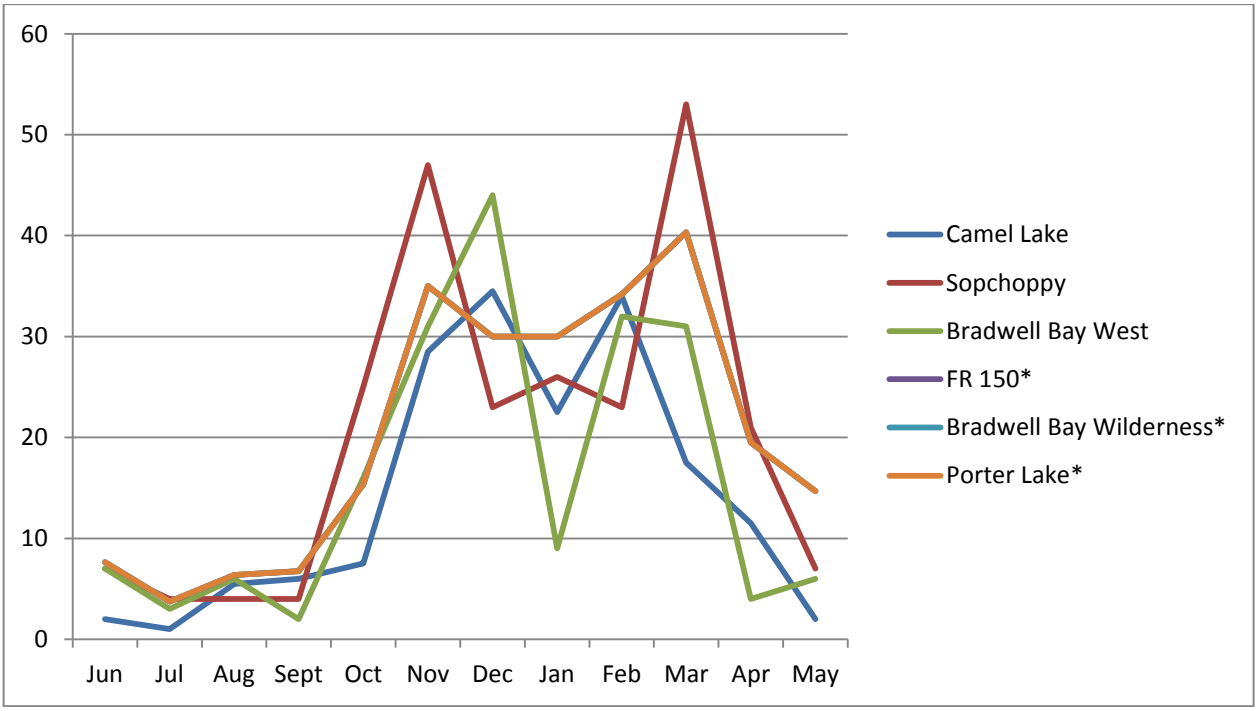

Figure 5. FNST Visitation at the Apalachicola NF 2013-2014
*Estimation calculated through access point averages (Appendix II)

2003-2014 Use Estimates

A comparison of data collected from 2003-2014 shows that highest use year was the 2005-2006 study season with 2,457estimated FNST visits.

Table 20. Comparison of FNST Visitation at the Apalachicola NF 2003 - 2014

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
2003-2004	*	*	*	*	150	107	63	156	154	273	334	158	1,933
2004-2005	115	61	65	33	79	106	79	118	122	171	80	72	1,099
2005-2006	127	129	115	136	137	255	184	231	291	270	214	368	2,457
2006-2007	149	138	123	138	88	134	94	159	188	238	106	85	1,640
2007-2008	60	39	46	30	102	132	140	149	210	151	132	81	1,271
2008-2009	43	40	58	25	101	120	116	157	186	227	140	83	1,296
2009-2010	43	36	46	27	75	120	127	132	184	221	124	92	1,227
2010-2011	39	33	41	42	103	119	126	152	192	208	146	86	1,287
2011-2012	30	32	33	28	89	140	125	160	155	163	152	73	1,178
2012-2013	21	53	40	48	80	142	172	115	223	212	125	56	1,284
2013-2014	39	19	35	32	95	212	192	148	192	223	95	59	1,338

*Mechanical counters not installed until October 2003

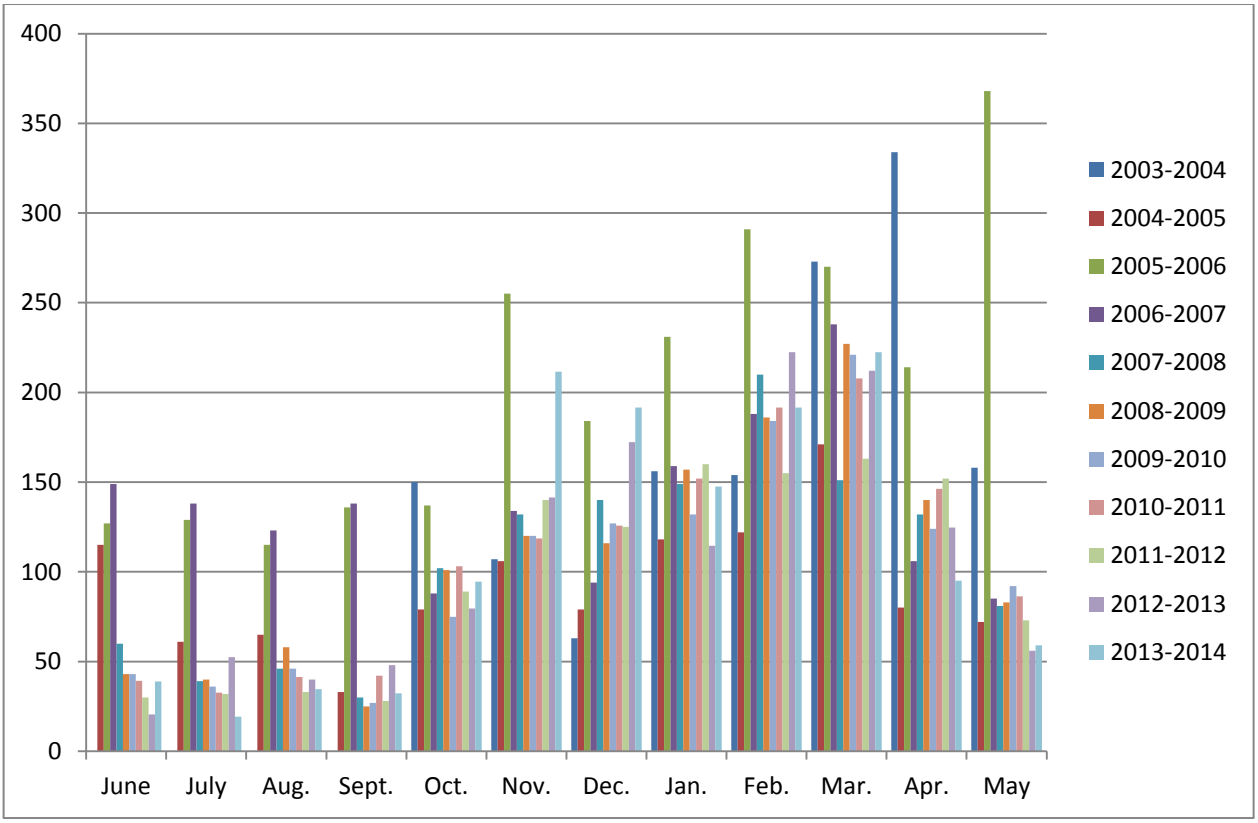

Figure 6. Comparison of FNST Visitation at the Apalachicola NF 2003-2014

Big Cypress National Preserve

Visitor Counter Data

Counter Type:
- Oasis North: TrailMaster Trail Monitor

Counter Related Problems and Solutions:
- Oasis North: there was no problem throughout the year.

Trail conditions throughout the year:
- Throughout the year the trail conditions in Big Cypress were generally good.

Table 21. FNST Visitation at the Big Cypress Preserve 2013-2014

Access Point	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
Oasis South	39	26	30	19	19	52	40	51	41	64	49	21	450
Oasis North	30	16	15	15	80	140	253	467	346	424	230	94	2,110
Loop Road*	30	29	25	33	15	35	30	30	34	40	20	15	336
Alligator Alley*	8	4	6	7	15	35	30	30	34	40	20	15	244
Monthly Total	107	75	76	73	130	262	353	578	455	568	318	144	3,139

*Estimation calculated through access point averages (Appendix II)

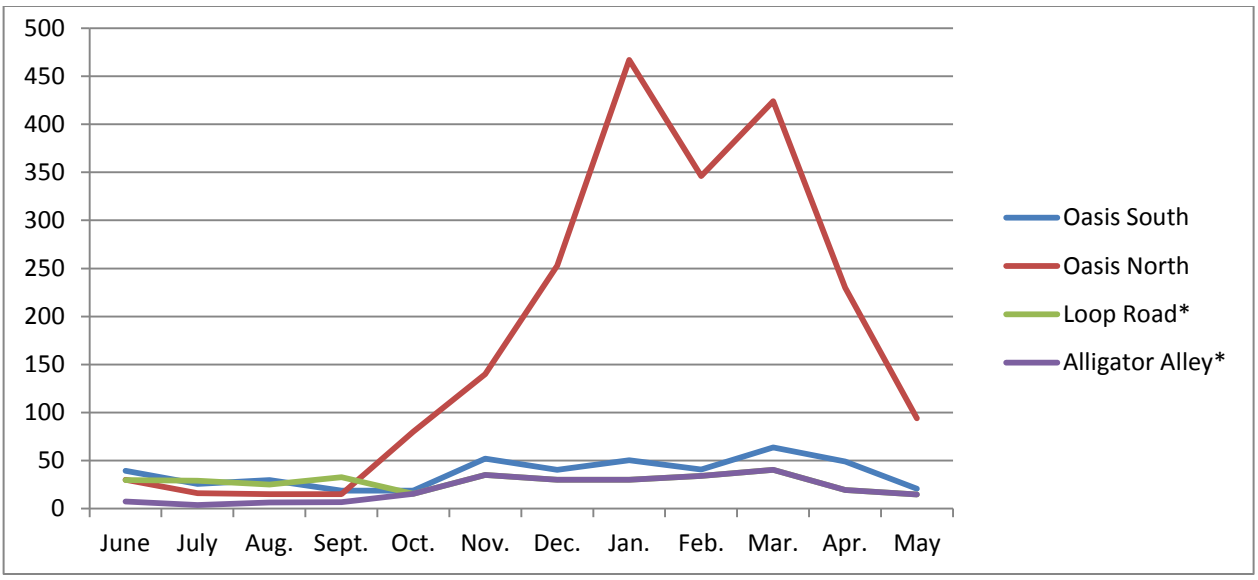

Figure 7. FNST Visitation at the Big Cypress National Preserve 2013-2014
*Estimation calculated through access point averages (Appendix II)

2006-2014 Use Estimates

A comparison of data collected from 2006-2014 shows that highest use year was the 2006-2007 study season with 3,378 estimated FNST visits.

Table 22. Comparison of FNST Visitation at the Big Cypress National Preserve 2006-2014

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
2006-2007	88	75	68	79	152	216	362	525	529	591	504	188	3,378
2007-2008	154	164	66	180	113	125	226	547	397	520	265	295	3,051
2008-2009	99	108	119	126	129	281	154	418	432	451	338	230	2,885
2009-2010	98	109	147	133	170	250	291	347	383	389	297	171	2,784
2010-2011	156	103	107	126	133	277	341	462	382	382	242	142	2,853
2011-2012	165	97	101	98	155	202	346	298	456	423	242	135	2,716
2012-2013	84	88	67	69	128	246	359	403	351	465	235	112	2,607
2013-2014	107	75	76	73	130	262	353	578	455	568	318	144	3,139

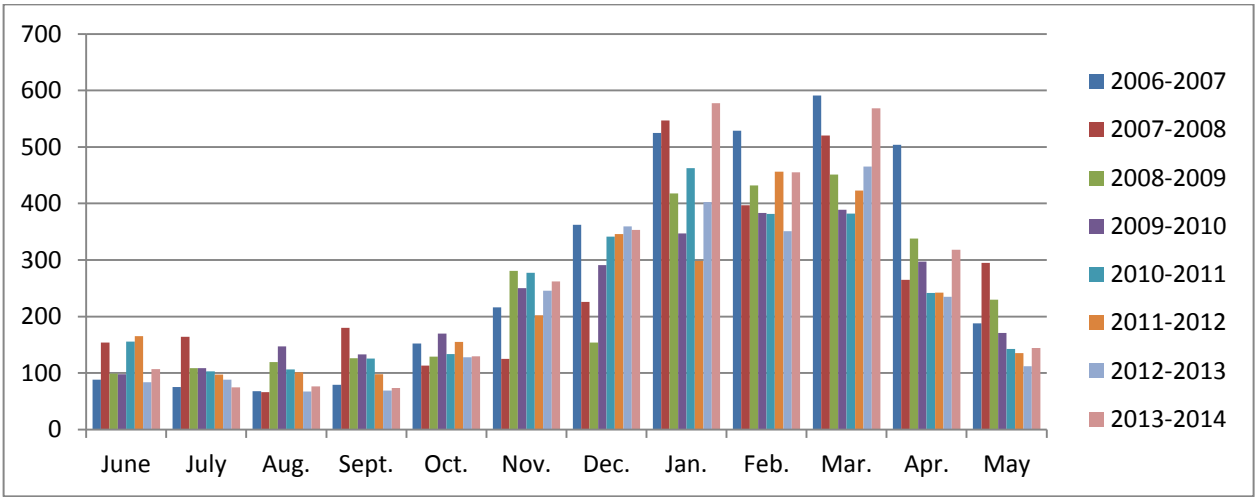

Figure 8. Comparison of FNST Visitation at the Big Cypress National Preserve 2006-2014

St. Marks NWR & Rail Trail

Visitor Counter Data

Counter type:

- Shepard Spring: TrailMaster Trail Monitor

Counter-related problems and solutions:

- The counter performed fairly well throughout the year.

Trail conditions throughout the year:

- Trail condition was excellent throughout the year.

Table 23. FNST Visitation at the St. Marks NWR & Rail Trail 2013-2014

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
Lighthouse Rd.	26	29	10	75	114	99	83	105	77	146	90	45	899
FR 102 (Vis. Ctr.)	2	5	2	3	3	5	1	2	19	24	6	10	82
Shepard Spring	42	5	26	11	17	71	33	53	16	46	30	14	364
*Purify Rd.**	8	4	6	7	1	13	14	14	23	36	15	7	148
*Wakulla Bch.**	8	4	6	7	15	35	30	30	34	40	20	15	244
Medart East	3	7	6	13	1	13	14	14	23	36	15	7	152
Monthly Total	88	54	57	116	151	236	175	218	192	328	176	98	1,888

*Estimation calculated through access point averages (Appendix II)

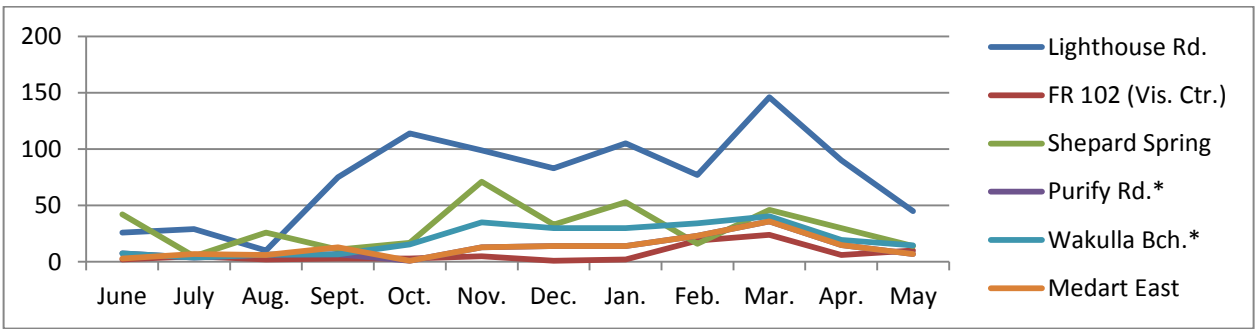

Figure 9. FNST Visitation at the St. Marks NWR & Rail Trail 2013-2014

2004-2014 Use Estimates

A comparison of data collected from 2004-2014 shows that highest use year was the 2013-2014 study season with 1,888 estimated FNST visits.

Table 24. FNST Visitation at the St. Marks NWR & Rail Trail 2004-2014

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
2004-2005	56	39	34	75	147	134	110	154	119	205	116	65	1,254
2008-2009	70	42	40	77	149	145	120	172	143	234	124	68	1,384
2009-2010	72	47	42	80	152	150	121	174	162	258	130	78	1,466
2013-2014	88	54	57	116	151	236	175	218	192	328	176	98	1,888

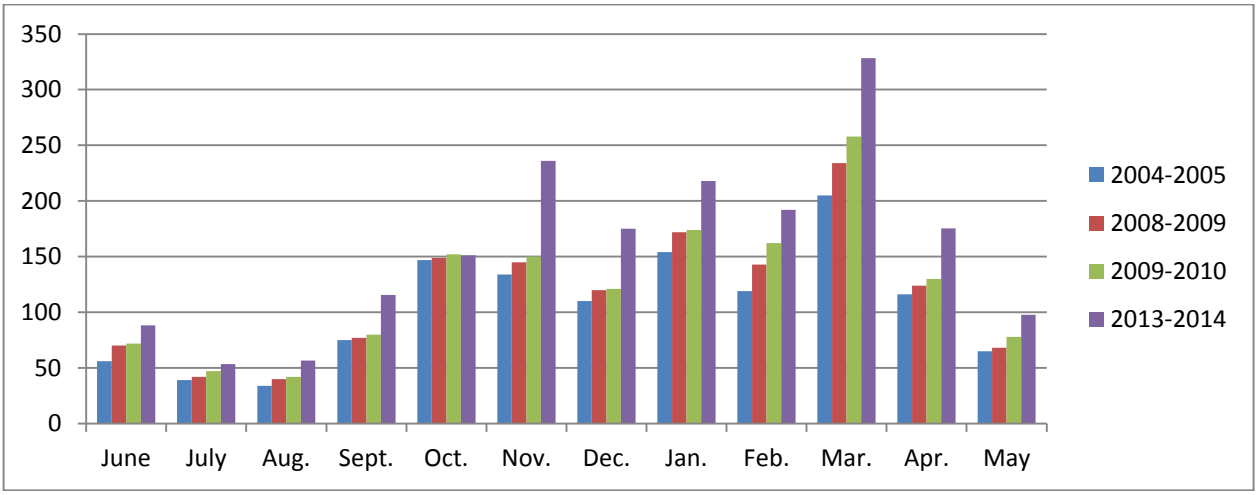

Figure 10. Comparison of FNST Visitation at the St. Marks NWR & Rail Trail 2004-2014

Tosohatchee State Preserve

Visitor Counter Data

Counter type:
- Wood Bridge/Powerline Road: TrailMaster Trail Monitor

Counter-related problems and solutions:
- There was one time power off causing some data loss.

Trail conditions throughout the year:
- The conditions were generally good throughout the year except high water in September 2013.

Table 25. FNST Visitation at the Tosohatchee State Preserve 2013-2014

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
Nicolas Rd.	44	11	32	90	29	45	40	29	45	40	61	61	527
Wood Bridge	53	31	22	49	81	112	85	132	118	84	89	45	901
Monthly Total	97	42	54	139	110	157	125	161	163	124	150	106	1,428

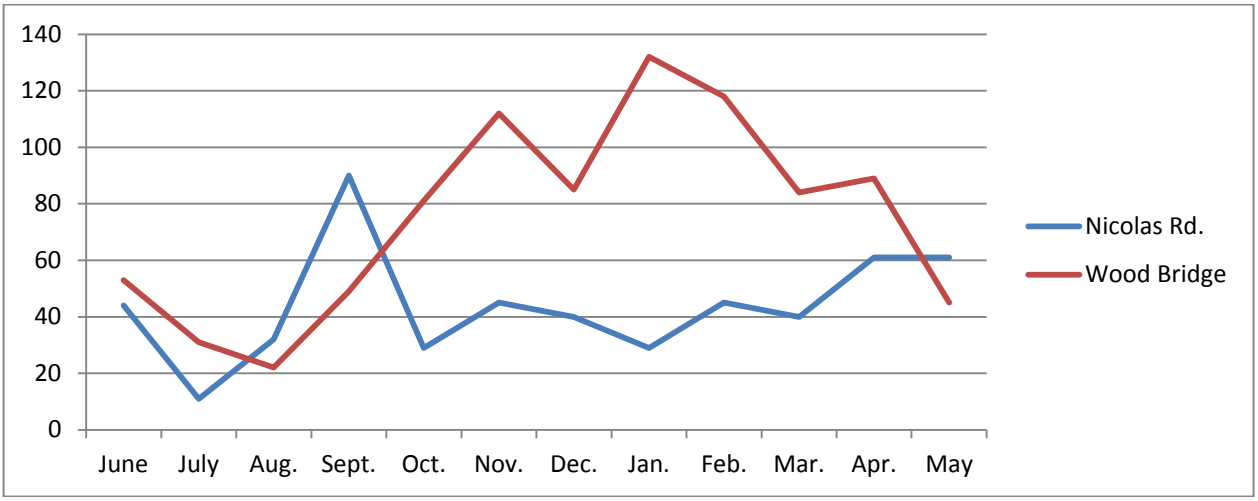

Figure 11. FNST Visitation at the Tosohatchee State Preserve 2013-2014

2005-2014Use Estimates

A comparison of data collected from 2005-2014 shows that the highest use year was the 2013-2014 study season with 1,428 estimated FNST visits.

Table 26. Comparison of FNST Visitation at the Tosohatchee State Preserve 2005-2014

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
2005-2006	44	11	32	90	29	45	40	29	45	40	61	61	527
2013-2014	97	42	54	139	110	157	125	161	163	124	150	106	1,428

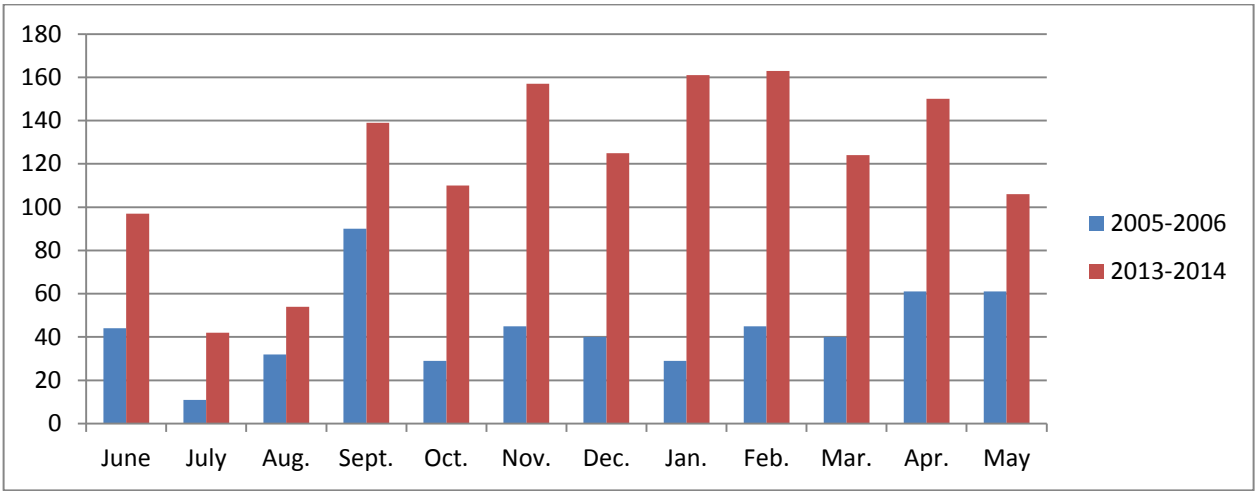

Figure 12. Comparison of FNST Visitation at the Tosohatchee State Preserve 2005-2014

Ocala National Forest

Visitor Counter Data

Counter type:
- Lake Delancy: TrailMaster Trail Monitor
- Juniper: TrailMaster Trail Monitor
- SR19: TrailMaster Monitor

Counter-related problems and solutions:
- Unit at SR19 was stolen in February 2014 causing some data loss.

Trail conditions throughout the year:
- Good

Table 27. FNST Visitation at the Ocala National Forest 2013-2014

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
Juniper Rec.	23	63	37	43	68	219	201	281	280	355	206	76	1,852
Clearwater**	33	26	17	22	82	65	84	73	120	108	88	63	780
SR 19	18	37	39	41	63	89	129	220	179	224	106	45	1,189
L. Delancy	14	6	7	14	11	26	52	48	61	51	37	40	367
Juniper Wild.*	8	4	6	7	81	112	85	132	118	84	89	45	771
AlexanderSpg*	8	4	6	7	15	35	30	30	34	40	20	15	244
Grassy Pond*	8	4	6	7	15	35	30	30	34	40	20	15	244
Buck Lake*	8	4	6	7	15	35	30	30	34	40	20	15	244
Hopkins Prai.*	8	4	6	7	15	35	30	30	34	40	20	15	244
TOTAL	126	151	132	154	366	651	671	874	894	983	604	327	5,932

* Estimation calculated by access point averages (Appendix II)
****** Data collected during study year 2009-2010

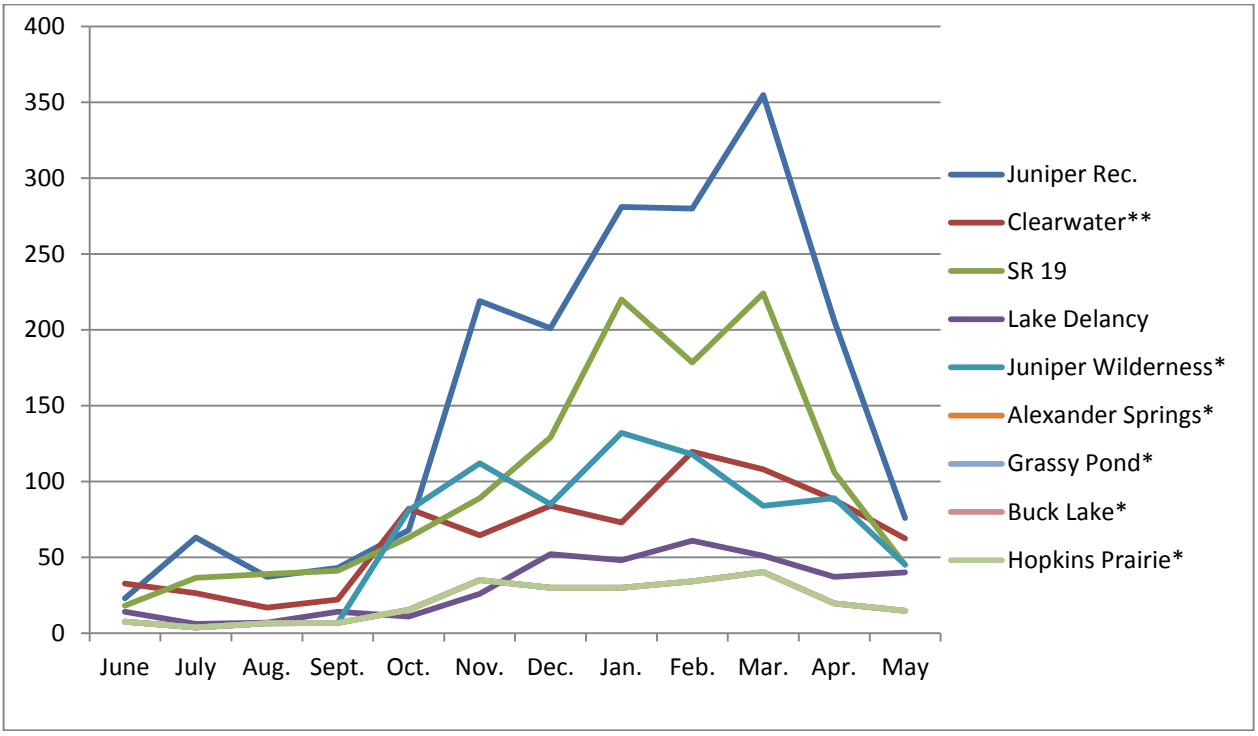

Figure 13. FNST Visitation at the Ocala National Forest 2013-2014
* Estimation calculated by access point averages (Appendix II)
**** Data collected during study year 2009-2010

2003-2014 Use Estimates

A comparison of data collected from 2003-2014 shows that highest use year was the 2006-2007 study season with 6,481 estimated FNST visits.

Table 28. Comparison of FNST Visitation at Twin Rivers State Forest 2003-2014

Study Year	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	Total
2003-2004	*	*	*	*	449	421	260	471	336	377	273	218	2,805
2004-2005	170	114	124	38	203	315	372	554	563	630	511	244	3,838
2005-2006	256	295	301	267	260	515	503	698	724	804	724	497	5,844
2006-2007	395	384	339	376	403	557	558	771	862	819	540	477	6,481
2007-2008	215	167	132	189	316	483	562	630	833	820	522	447	5,316
2008-2009	229	227	298	195	319	531	643	869	928	667	505	392	5,803
2009-2010	232	231	133	177	348	552	576	756	712	846	576	403	5,542
2010-2011	200	223	152	289	404	506	531	693	841	914	521	370	5,643
2011-2012	186	168	153	138	409	610	676	789	824	880	517	331	5,681
2012-2013	163	120	163	245	421	587	759	766	920	976	519	332	5,970
2013-2014	126	151	132	154	366	651	671	874	894	983	604	327	5,932

*Data collection by the mechanical counters did not begin until October 2003

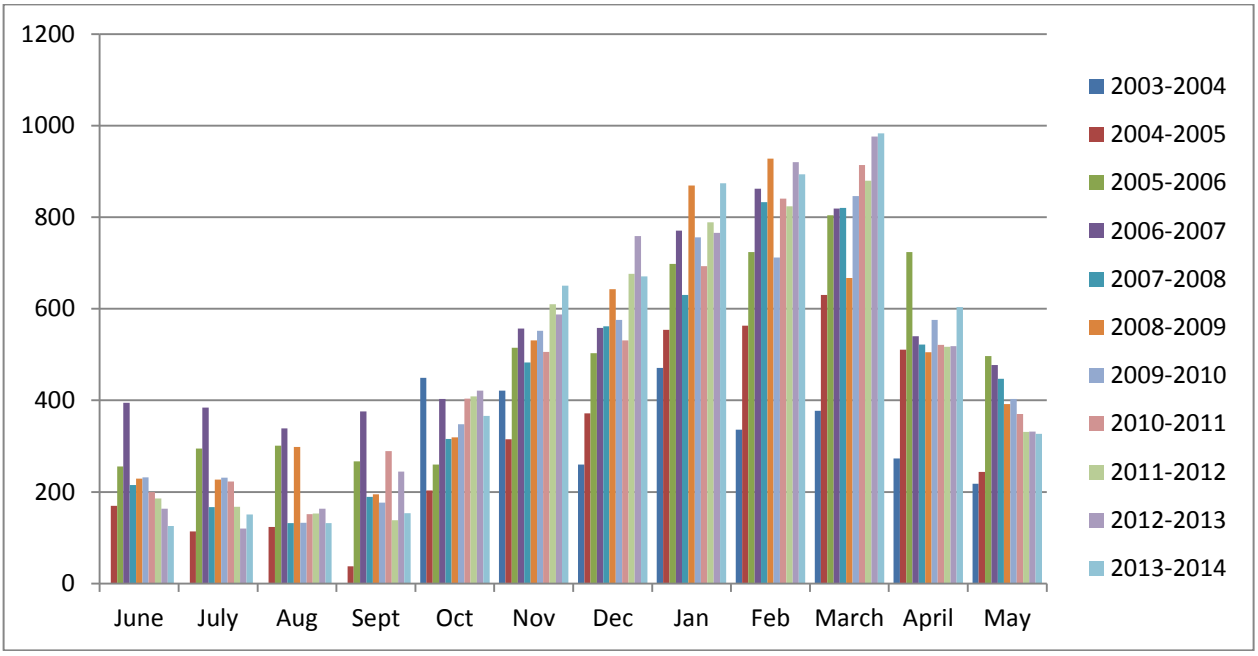

Figure 14. Comparison of FNST Visitation at the Ocala National Forest 2003-2014

Osceola National Forest

Visitor Counter Data

Counter type:
- Battle Field: TrailMaster Trail Monitor
- Turkey Run: TrailMaster Trail Monitor

Counter related problems and solutions:
- Both Battle Field and Turkey Run counters had mechanical failures.

Trail conditions throughout the year:
- Very good.

Table 29. FNST Visitation at the Osceola Nation Forest 2013-2014

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
Battlefield	12	24	11	37	7	19	16	22	36	30	7	13	234
Turkey Run	3	2	9	7	16	16	12	22	37	31	18	8	180
Deep Creek*	8	4	6	7	1	13	14	14	23	36	15	7	148
Monthly Total	22	30	26	51	24	48	42	58	96	97	40	28	562

* Estimation calculated by access point average (Appendix II)

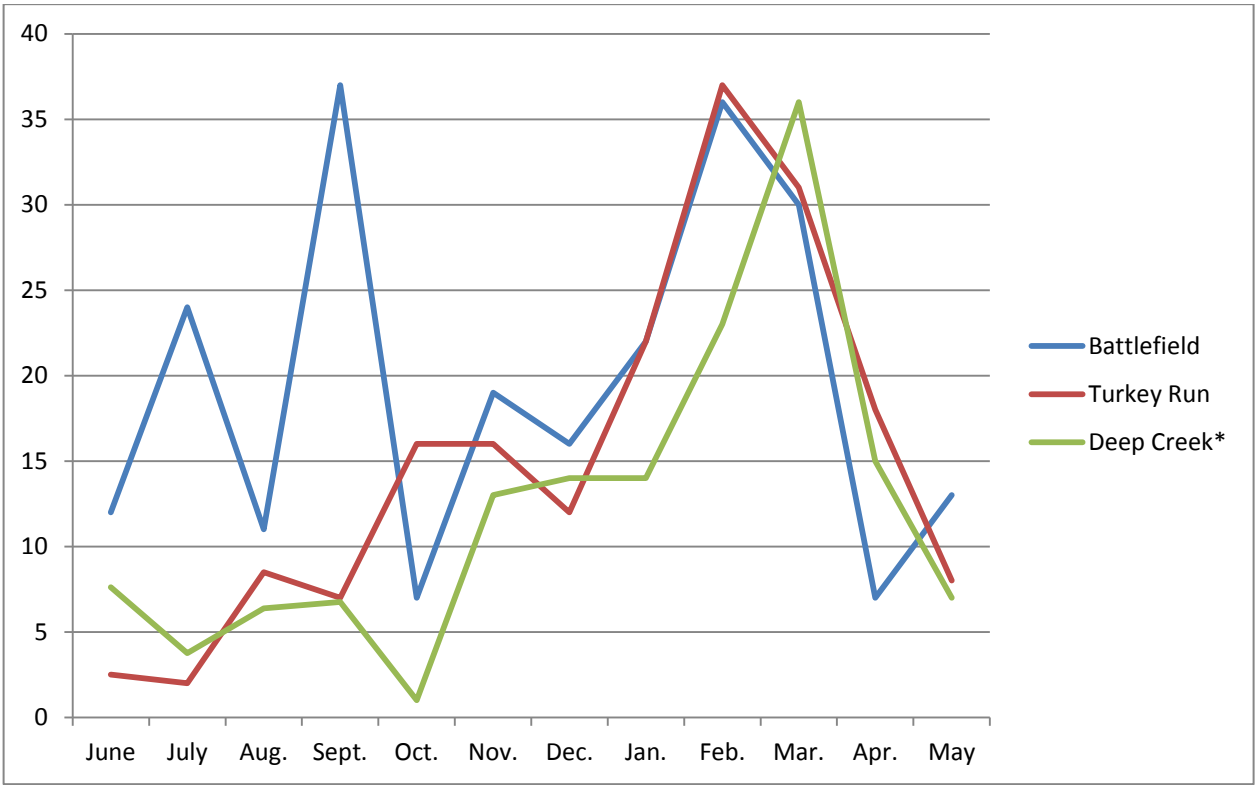

Figure 15. FNST Visitation at the Osceola National Forest 2013-2014
* Estimation calculated by access point average (Appendix II)

2003-2014 Use Estimates

A comparison of data collected from 2003-2014 shows that highest use year was the 2004-2005 study season with 1,609 estimated FNST visits.

Table 30. Comparison of FNST Visitation at the Osceola National Forest 2003-2014

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Total
2003-2004	*	*	*	*	48	30	18	55	116	71	41	35	414
2004-2005	45	18	24	0	21	212	282	241	277	254	147	88	1609
2005-2006	33	39	68	52	89	200	211	195	176	269	142	30	1504
2006-2007	39	25	26	26	57	26	124	87	190	79	75	24	692
2007-2008	36	26	19	37	60	63	39	53	91	76	44	30	571
2008-2009	27	21	37	48	43	67	56	98	63	92	67	38	657
2009-2010	27	20	39	28	57	58	35	90	78	74	67	38	611
2010-2011	35	29	26	21	44	65	36	78	121	85	65	44	649
2011-2012	32	25	25	22	45	51	55	88	119	85	49	50	642
2012-2013	8	16	20	46	34	57	69	76	182	136	49	43	732
2013-2014	22	30	26	51	24	48	42	58	96	97	40	28	562

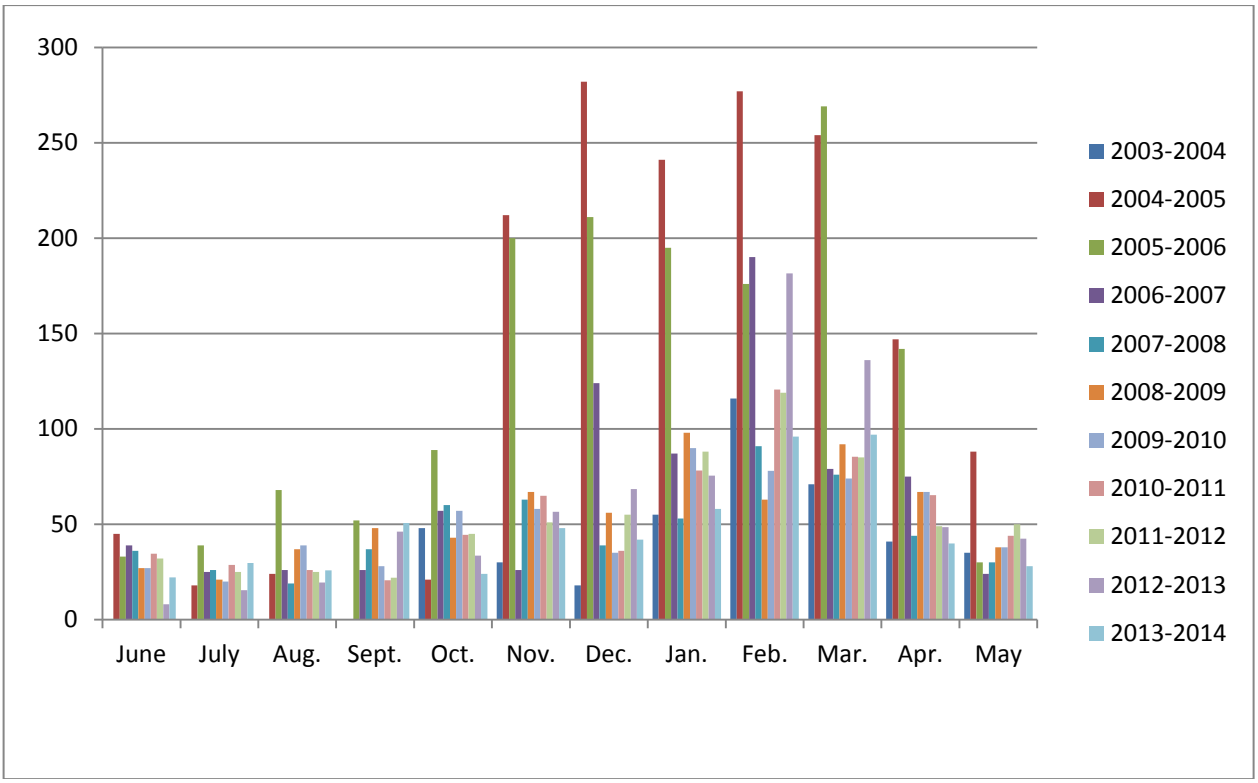

Figure 16. Comparison of FNST Visitation at the Osceola National Forest 2003-2014