

A Visitor Assessment of Florida National Scenic Trail Visitors on Florida Fish and Wildlife Conservation Commission Lands



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Introduction to the Project

From the summer of 2003 through the summer of 2008, researchers from the University of Florida studied visitors on the Florida National Scenic Trail (FNST). The Trail traverses almost the whole state from Pensacola to Big Cypress National Preserve. Researchers studied visitors to the Trail on public lands throughout the state with the cooperation of every type of public land agency. This includes the National Park Service, U.S. Forest Service, U.S. Fish and Wildlife Service, US Army Corps of Engineers, U.S. Department of Defense, Florida Division of Forestry, Florida Fish and Wildlife Conservation Commission, Florida State Parks, and Florida's water management districts (Northwest Florida, Suwannee River, St. Johns River, Southwest Florida, and South Florida).

The project consisted of two main parts: to count visitors and to understand who they are and why they use the Trail. In order to count visitors, mechanical counters (either infrared or pressure sensitive pads) were placed along the FNST near trailheads. This gave researchers 24 hour monitoring capabilities. Each site had a counter installed for one or more years, so seasonal fluctuations could be studied. The data were analyzed monthly and cleaned to correct for counts triggered by wildlife or meteorological

events. This produced fairly reliable counts for each section of the Trail that was monitored. In some instances, counters were not installed. Instead, different sampling strategies were used that included visual monitoring, permits, and other strategies.

A questionnaire was also administered to better understand the recreation habits and motivations of visitors to the FNST. Trained surveyors questioned visitors about their demographics, desired experiences, satisfaction, and other recreation activities involved in while on the Trail. This portion of the study was also completed in areas all over the State and on lands representing all the different types of land management agencies in Florida.

The following report is a summary of the results of both portions of the study for all Florida Fish and Wildlife Conservation Commission lands where the study was conducted. Some areas only had visitor counting done and no questionnaires administered. Also, it should be noted that the survey sample size was sometimes small in the lower use areas. The sample size is noted above the results summary. Hopefully, this report will help the FWC personnel better understand the recreation habits of visitors to their lands.



Aucilla Wildlife Management Area

2004-2005 Use

Preliminary research performed in 2001-2002 indicated that Aucilla WMA should be classified as a low use site, receiving 364 visits or less per year. However, counts gathered from a mechanical counter and other methods determined that Aucilla was a medium use site receiving an estimated 366-999 visits annually.

Estimation of Visitors

An infrared eye was installed in June 2004 on Goose Pasture Rd. to gather information on the number of visits the trail received during the study year. An access point average was applied to the CR 14 access point. The results are shown below.

Table 1. Use of the Florida National Scenic Trail at Aucilla WMA: June 2004- May 2005

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	TOTAL
Goose Pasture	33	44	25	35	35	30	22	52	29	73	40	4	450
CR 14	15	5	12	2	12	10	5	11	4	12	5	3	97
TOTAL	48	49	37	37	47	40	27	63	33	85	45	36	547

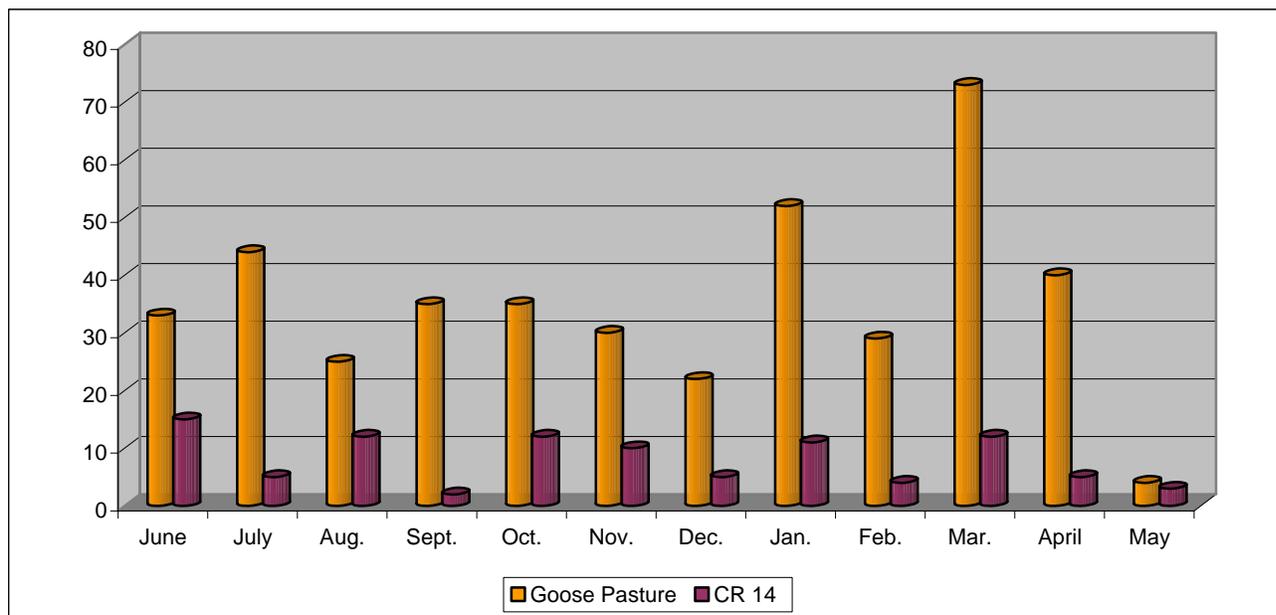


Figure 1. Aucilla WMA estimation of visitors: June 2004- May 2005

Green Swamp (East and West)

2005-2006 Use

Counter Type:

- River Road: Pressure pad, infrared eye
- SR 471: Pressure pad, infrared eye
- Rock Ridge Road: Infrared eye

Counter-related problems and solutions:

- River Road initially had a pressure pad installed that had some trouble until finally failing in September 2005. The counter was replaced in February 2006 with a Trailmaster infrared eye which worked fine.
- SR 471 initially had a pressure pad installed which failed in November 2005. It was replaced in February 2006 by a Trailmaster infrared eye which had a battery problem. The problem was solved in early April and the unit worked fine the remainder of the year.
- Rock Ridge Road was studied with a Diamond Traffic infrared eye. There was

data loss between October and December, but was fixed in January.

Trail condition throughout the year:

- At all three access points to the trail were in good condition. The only exception was the spur trail at River Road which was overgrown in the Fall.

Estimation of Visitors

Preliminary research conducted in 2001-2002 indicated that the Green Swamp was a low use area. Research conducted in 2005-2006 shows the Green Swamp area to be a high use area, having over 1000 visits/ year. The highest use month was February with 158 visitors and the lowest use month was October with 56 visitors. Due to data loss from counters that did not function properly, there were several months where data from access point averages had to be used to get a monthly estimated user count.

Table 2: Use of the Florida Trail at Green Swamp East and West June 2005- May 2006

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Rock Ridge Rd.	31	49	72	81	19	35	22	43	84	11	39	19	309
SR 471	31	33	18	40	28	78	22	39	33	23	33	19	250
River Rd.	2	5	3	1	9	35	22	39	41	56	30	31	77
TOTAL	64	87	93	122	56	148	66	121	158	90	102	69	636

■ = Months where data was missing so access point averages from previous research years were used to get monthly count

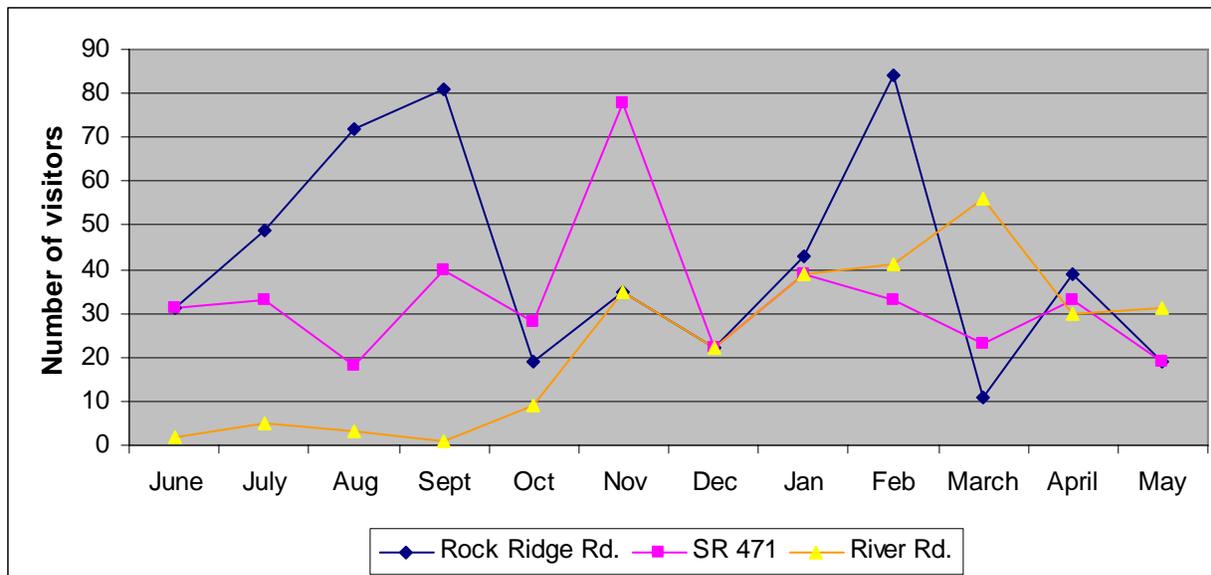


Figure 2. Use of the Florida National Scenic Trail at Green Swamp East and West: June 2005-May 2006

Questionnaire Results

(n = 3)

Participant Use History & Knowledge

- 67% of participants did not know they were on the FNST
- 72% of participants had not visited the FNST before

Participant Trip Characteristics

- 100% of participants entered and exited the trail from the same trailhead
- 100% of participants traveled in pairs, all with a family member
- 67% of participants spent half a day or less
- Participants visited the FNST to hike, camp, fish, and study nature

Participant Trip Experience

- 67% rated their experience as a 7 or higher with a 10 being a perfect experiences

- Reasons why the participants experience was not a ten included
 - Lack of wildlife
 - Lack of maintenance (litter present, trail undefined)
- Suggested improvements for the FNST in this area included:
 - Better maintenance and blazes
 - Enforcement of rules (horse and bike traffic)

Participant Demographics

- Age
 - 33.3% were between the ages of 40-49 year old
 - 33.3% were between the ages of 30-39 years old
 - 33.3% were between the ages of 18-29 years old
- Gender
 - 50% of respondents were male
 - 50% of respondents were female

Econfina Creek Wildlife Management Area

2005-2006 Use

Counter Type

- SR 20: Econfina was studied by means of a Diamond Traffic infrared counter installed at the SR 20 trailhead.
- Scott Rd. was visually monitored and an appropriate access point average was applied.

Counter-related problems and solutions:

- There were no reported problems with the counter equipment throughout the study year.

Trail condition throughout the year:

- The trail was in good condition throughout the year.

Estimation of Visitors

Preliminary research performed in 2001-2002 indicated that Econfina was a low use site, receiving 365 visits or less/ year. Although Econfina Creek was initially estimated to be a low use site, counter data indicated that it was a medium use site, receiving 886 visits in the research year. Access point averages were applied to Scott Road, which did not have a counter. The highest use month for Econfina was January with an estimate 109 FT visitors and the lowest use month was September with an estimated 10 FT visitors.

Table 3. Use of the Florida National Scenic Trail at Econfina Creek: June 2005-May 2006

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
SR 20	30	21	39	9	51	40	81	96	57	127	153	73	271
*Scott Rd.	13	6	11	1	14	11	6	13	4	13	11	6	62
TOTAL	43	27	50	10	65	51	87	109	61	140	164	79	333

= Months where data was missing so access point averages from previous research years were used to get monthly count.

* = Access point that was not monitored. Use level was estimated and an access point average was applied.

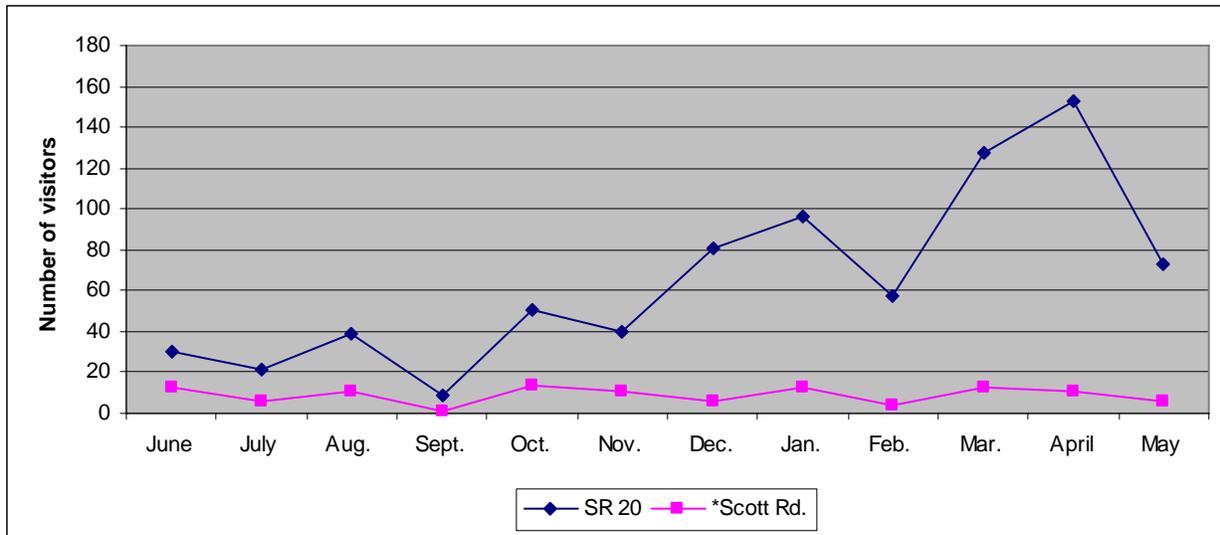


Figure 3. Use of the Florida National Scenic Trail at Econfina Creek: June 2005-May 2006

Questionnaire Results

(n = 3)

Use History & Knowledge

- 100% of the participants knew they were hiking on the FNST
- 67% have hiked the FNST before
- 67% have hiked the FNST 2-6 other times within the past 12 months

Participant Trip Characteristics

- 84% of visitors did not enter and exit from the same trailhead
- 100% of visitors spent a few hours or less along the FNST
- 67% of participants traveled in pairs
- 67% of participants traveled with family or with a significant other
- Participants visited the FNST to hike/jog, view scenery, and study nature

Participant Trip Experience

- 67% of visitors rated their experience as a 7 or higher with 10 being a perfect experience
- Reasons why the participants trip was not a ten included
 - Interpretive signs were not clear
 - Weather (to hot)
 - Personal (tired)
- Some suggested improvements for this segment of trail included:
 - Increased water availability (hand-pump)
 - Better shelters for backpackers
 - More interpretive information along the trail as well as about the trail

Participant Demographics

- Age
 - 67% of participants were between the ages of 50-59 years old
 - 34% of participants were between the ages of 40-49 years old
- Gender
 - 67% were male
 - 34% were female

Highlands

2006-2007 Use

Counter Type:

- Bluff Hammock: Diamond Traffic infrared eye.
- Hickory Hammock: Diamond Traffic infrared eye.
- Yates Marsh and Platts Bluff were visually monitored and appropriate access point averages were applied.

Counter-related problems and solutions:

- Bluff Hammock: Counter worked well throughout the study period except for battery dying prematurely in May. Changed battery.
- Hickory Hammock: Counter worked well throughout the study period except for July, the alignment was only 60%. It was corrected by putting a shim under the reflector.

Trail condition throughout the year:

- Bluff Hammock: Trail was completely overgrown from July-October and May-June and slightly overgrown in March and April otherwise it was in good condition.
- Hickory Hammock: Trail was in good condition throughout the year.

Estimation of Visitors

Highlands was a high use site that received an estimated 1,735 visits in 2006-2007. Two access points were monitored using infrared eyes and two access points were visually monitored. The highest use month for Highlands was January, with an estimated 232 visits. The lowest use month was October, with an estimated 81 visits. The Bluff Hammock site showed an unusual pattern of highest use in the months of July, August, and September, usually the hottest months and therefore the times when visitation is lowest. Since counters worked correctly throughout this time there is no immediate explanation for the derivation.

Table 4. Use of the Florida Trail at Highlands June 2006- May 2007

Access Pt.	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	TOTAL
Bluff Hammock	48	99	108	109	28	40	71	70	88	84	36	29	810
Hickory Hammock	17	29	12	11	10	48	20	80	42	47	11	27	354
*Yates Marsh	12	6	9	4	22	31	30	41	45	43	26	18	285
*Platts Bluff	12	6	9	4	22	31	30	41	45	43	26	18	285
TOTAL	89	140	138	128	81	150	150	232	219	216	98	92	1735

* Access point that was not monitored, therefore an access point average was applied

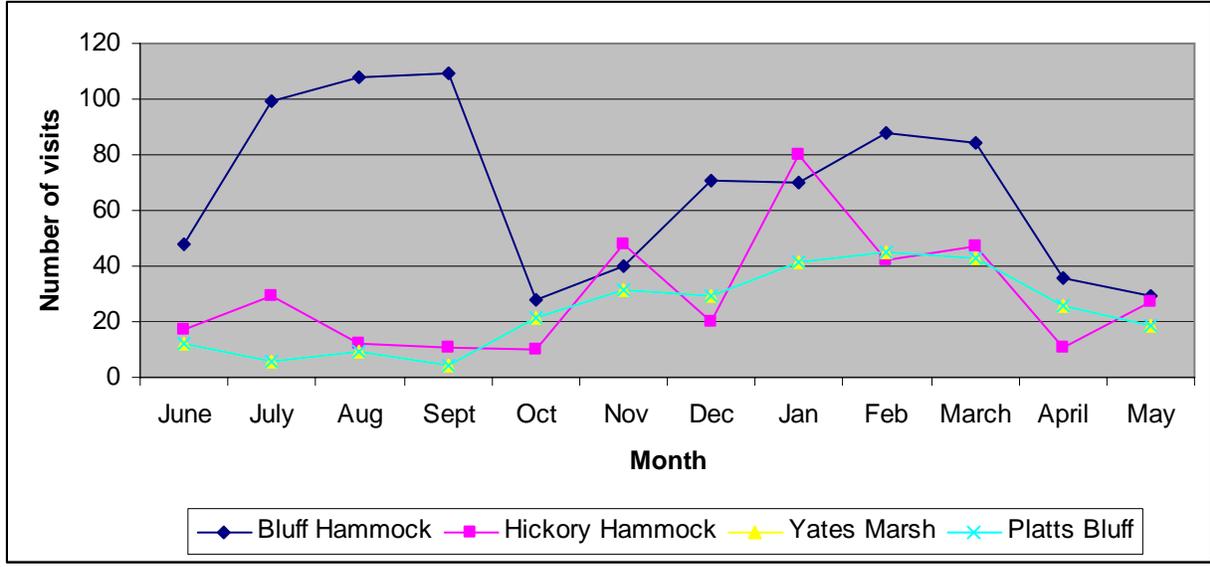


Figure 4. Use of the Florida National Scenic Trail at Highlands: June 2006- May 2007

Bull Creek Wildlife Management Area

2006-2007 Use

Counter Type:

- US 192: Diamond Traffics infrared eye.
- Crabgrass Road: Diamond Traffics infrared eye.

Counter-related problems and solutions:

- US 192: Counter worked well throughout the study period.
- Crabgrass Road: Counter worked well throughout the study period except for in August someone shot the reflector. The reflector was replaced.

Trail condition throughout the year:

- US 192: Trail was in good condition throughout the study period.
- Crabgrass Road: Trail was in good condition throughout the year. Parts of

the trail had standing water during wet periods.

Estimation of Visitors

Bull Creek Wildlife Management Area is a medium use site, receiving 999 estimated visits in 2006-2007. Initial research conducted in 2003-2004 indicated that Bull Creek was probably a low use site, however the 2006-2007 season indicated it was a medium use site. The highest use month was November with 118 estimated visits and the lowest use month was July with an estimated 29 visits. One access point was monitored with an infrared counter and one was visually monitored.

Table 5. Use of the Florida Trail at Bull Creek WMA June 2006- May 2007

Access Pt.	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	TOTAL
US 192	13	4	10	9	11	4	9	11	13	27	34	25	170
Crabgrass Rd.	46	25	27	65	83	114	93	65	49	126	70	66	829
TOTAL	59	29	37	74	94	118	102	76	62	153	104	91	999

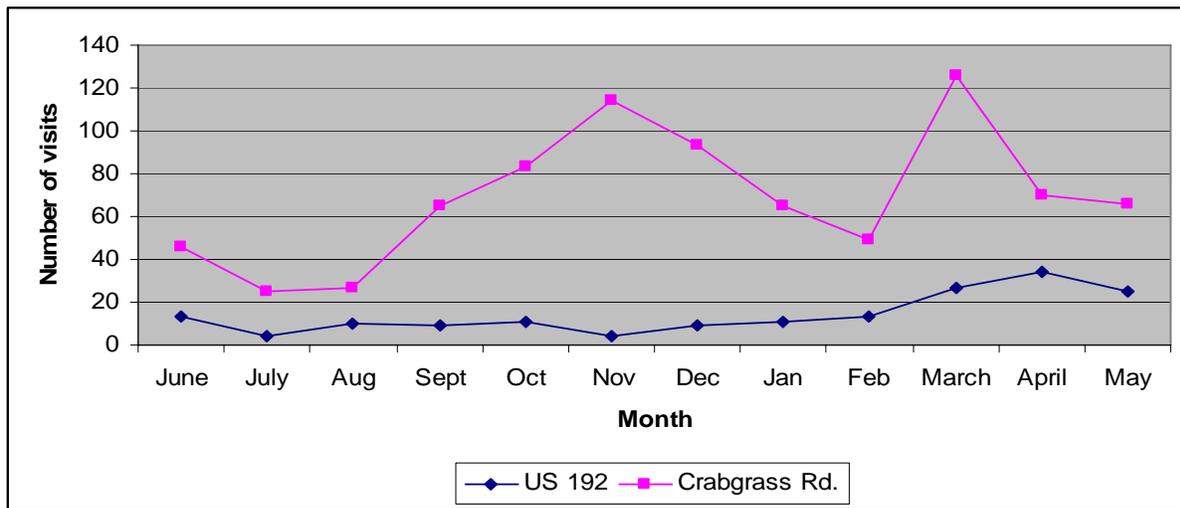


Figure 5. Use of the Florida National Scenic Trail at Bull Creek WMA: June 2006- May 2007

Kicco Wildlife Management Area/ Avon Park Air Force Range

2006-2007 Use

Counter Type:

- Kicco: Diamond Traffics infrared eye.
- Ft. Kissimmee in Avon Park was visually monitored and an appropriate access point average was applied.

Counter-related problems and solutions:

- Kicco: Counter had had a problem with alignment. This was solved by moving the reflector closer to the counter. Another problem was two cow paths crossed in front of the beam path and the cows were causing counts to register so brush was piled up to divert the cows away from the counter. There was also a problem in February with a battery going

dead prematurely. A new battery was installed.

Trail condition throughout the year:

- Kicco: Trail was in good condition throughout the year.

Estimation of Visitors

Initial research conducted in 2003 indicated that Kicco WMA was a low use site. Research conducted in 2006-2007 concluded that Kissimmee River WMA was a medium use site with an estimated 526 users. The highest use month was December with 72 hikers and the lowest use months were May and February with 25 hikers.

Table 6. Use of the Florida Trail at Kissimmee River WMA/ Avon Park June 2006- May 2007

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Kicco	15	47	46	44	23	28	67	42	20	43	32	20	427
<i>*Ft Kissimme in Avon Park</i>	<i>12</i>	<i>6</i>	<i>9</i>	<i>4</i>	<i>11</i>	<i>9</i>	<i>5</i>	<i>11</i>	<i>5</i>	<i>13</i>	<i>9</i>	<i>5</i>	<i>99</i>
TOTAL	27	53	55	48	34	37	72	53	25	56	41	25	526

*Access point that was not monitored, therefore an access point average was applied

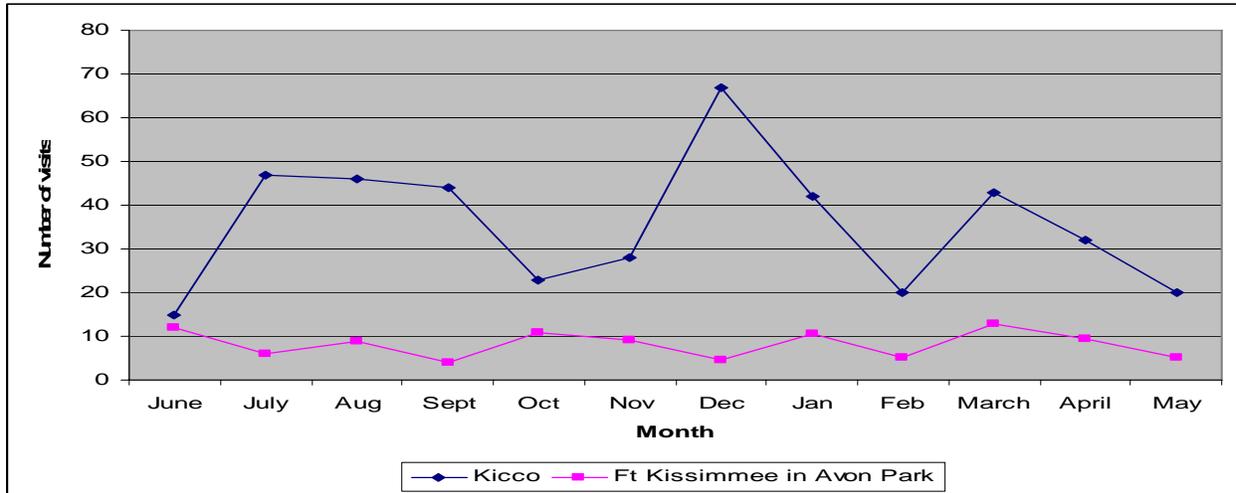


Figure 6. Use of the Florida National Scenic Trail at Kicco WMA and Fort Kissimmee in Avon Park: June 2006-May 2007

Three Lakes Wildlife Management Area

2006-2007 Use

Counter Type:

- Parker Hammock Camp parking: Diamond Traffics infrared eye.
- SR 523 Prairie Lakes Unit, Lake Jackson boat ramp, Lake Jackson observation tower, and SR 60 south check station were visually monitored and appropriate access point averages were applied.

Counter-related problems and solutions:

- Parker Hammock: Counter worked well throughout the study period.

Trail condition throughout the year:

- Parker Hammock: Trail was in good condition throughout the year except for the months of May and June it started to become overgrown.

Estimation of Visitors

Initial research conducted in 2003 indicated that Three Lakes was probably a low use site. 2006-2007 research concluded that Three Lakes is a high use site, receiving an estimated 1,704 hikers during the year. There are five access points for the FNST at Three Lakes which provides multiple opportunities for hikers to use the FT from the WMA. The highest use month was January with an estimated 218 users and the lowest use month was May with an estimated 78 users.

Table 6. Use of the Florida Trail at Kissimmee River WMA/ Avon Park June 2006- May 2007

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Parker Hammock camp parking	16	35	17	41	67	28	69	84	51	32	33	18	491
*SR 523 Prairie Lakes unit entrance	30	30	25	32	22	31	30	41	45	43	26	18	371
*Lake Jackson boat ramp	30	30	25	32	22	31	30	41	45	43	26	18	371
*Lake Jackson observation tower	30	30	25	32	22	31	30	41	45	43	26	18	371
*SR 60 South check station	12	6	9	4	11	9	5	11	5	13	9	5	99
TOTAL	118	131	101	141	142	131	162	218	190	173	119	78	1704

*Access point that was not monitored. Use level was estimated and an access point average was applied.

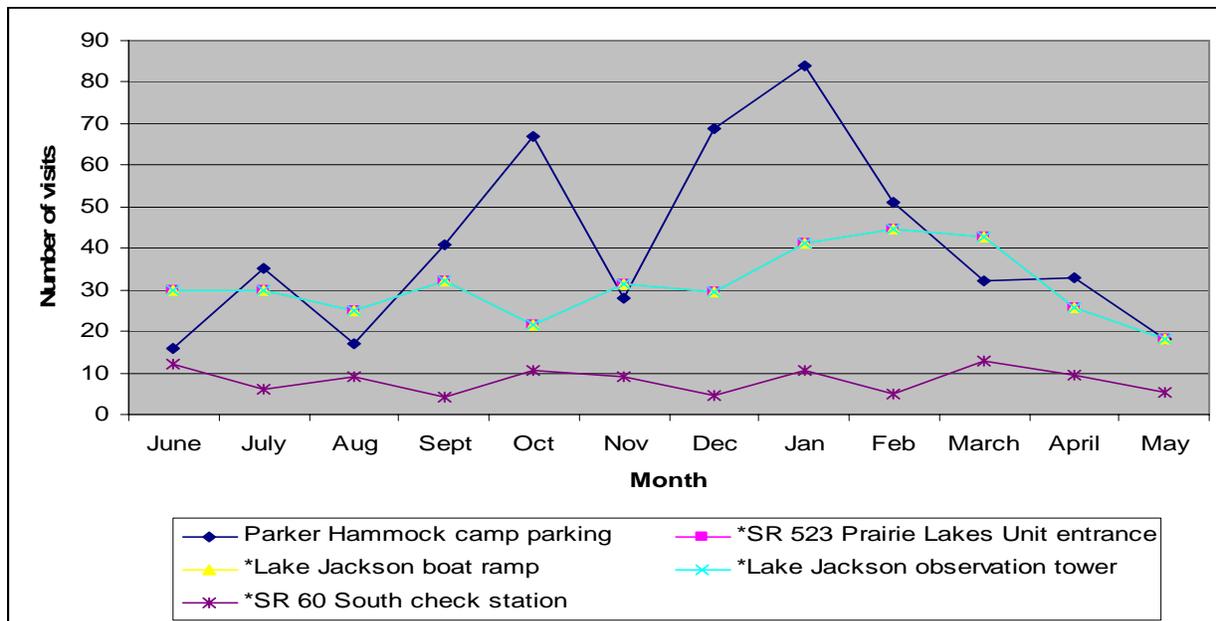


Figure 6. Use of the Florida National Scenic Trail at Three Lakes Wildlife Management Area: June 2006- May 2007

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