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## Project Overview

The objective of this project was to collect data from trail counters to better understand how and when the trails on state forest properties are used.

## Methods

Starting in 2015, TRAFx trail counters were placed in key spots on trails, roads, and campgrounds on state forest property. However, because this project is primarily concerned with trail traffic, only the counters on trails were included in the analysis. Once the trail counters were placed, they used infrared technology to count and record how many people used the trail. The data from these counters were then collected on the TRAFx website and interpreted.

## Issues

Due to the nature of infrared technology, counters may record an artificially high number of people on the trails. For example, if someone stands in front of the counter, it will record a new person every three seconds. Animals walking by might also be recorded. Because of this, large spikes in data were excluded from the analysis for this report.

Additionally, malfunctions with the counters sometimes resulted in hours, days, and months of no data. For the totals of months that are missing data, the report used projected totals instead of actual numbers.

## Results

## Knobstone Trail

The Knobstone Trail is a 59-mile backcountry trail. A total of 32 miles of the trail are in Clark State Forest, while the remaining 27 miles are located in the Elk Creek Public Fishing Area and JacksonWashington State Forest. Eight trail counters were placed at varying points throughout the Knobstone Trail, starting in the south at Deam Lake, then following the trail north and west with points at Jackson Road, Pixley Knob Road, New Chapel, Leota, Elk Creek, Oxley Memorial, and ending at Spurgeon Hollow.

Of the eight trail counters placed, the counters at Deam Lake and Oxley Memorial were excluded because they were missing too much data for accurate analysis.

## Knobstone Trail: Jackson Road Trailhead Counter

The counter placed at the Knobstone Trail's intersection with Jackson Road recorded 2,523 people over the course of 268 days in 2019. The average daily total was nine people. Sunday was the busiest day, followed by Saturday. Monday and Thursday had the fewest people on average (Figure 1). Monthly, November and December had the highest numbers of people, with February and September having the lowest (Figure 2). Data was missing for June and July.


Figure 1: Average number of people recorded for each day of the week.


Figure 2: Total number of people recorded during each month.

## Knobstone Trail: Pixley Knob Road Trailhead Counter

The Pixley Knob counter recorded 4,391 people over 192 days, an average of 23 people per day. Tuesdays and Fridays were the busiest days of the week, with Sunday being the least busy (Figure 3). The counter recorded the highest number of people in May and October. July and August were the months with the fewest people counted excluding June, which had no data (Figure 4).


Figure 3: Average number of people recorded for each day of the week.


Figure 4: Total number of people recorded during each month.

## Knobstone Trail: New Chapel Trailhead Counter

The counter at New Chapel recorded 773 people over 262 days, with an average of three people per day. Saturday had the highest average number of people, followed by Sunday, with Wednesday and Thursday the days with the lowest average (Figure 5). Additionally, May and July were the months the trail was used the most, while this portion of the trail was used the least in September (Figure 6). Data was missing for April and June.


Figure 5: Average number of people recorded for each day of the week.


Figure 6: Total number of people recorded during each month.

## Knobstone Trail: Leota Trailhead Counter

The Leota counter recorded 1,606 people over 275 days, an average of six people per day. The weekends were the busiest days for this section of the trail, with Saturday the busiest while Wednesday and Thursday were the slowest. (Figure 7) The counter recorded the highest number of people in October and September. January and February were the months with the fewest people counted, excluding June which had no data (Figure 8).


Figure 7: Average number of people recorded for each day of the week.


Figure 8: Total number of people recorded during each month.

## Knobstone Trail: Spurgeon Trailhead Counter

The Spurgeon Hollow trail counter recorded 2,590 people over the course of 341 days in 2019 for an average of eight people per day. Weekly data show Saturday and Sunday were the most common days for hiking this section of the trail, while Monday and Wednesdays were the least popular days (Figure 9). April and May were the most popular months, with January, February, and December being the least popular (Figure 10).


Figure 9: Average number of people recorded for each day of the week.


Figure 10: Total number of people recorded during each month.

## Knobstone Trail: Elk Creek Trailhead Counter

The Elk Creek counter recorded 1,907 people over 290 days, an average of seven people per day. The weekends were the busiest days of the week for this section of the trail with Saturday being the busiest day while Tuesday and Thursday were the slowest days of the week (Figure 11). The counter recorded the highest number of people in September. May and July were the months with the fewest people counted, excluding June which had no data (Figure 12).


Figure 11: Average number of people recorded for each day of the week.


Figure 12: Total number of people recorded during each month.

## Deam Lake Vista Trail

The Lake Vista Trail (estimated 2.5 miles) is the most scenic and rugged of the Deam Lake trails. The trail winds through bottomlands that can be muddy or even submerged during wet times or after a heavy rain. Steep and rolling hills overlook the lake. At the apex of the trail, a large rock cutout has a nice view of the lake. This trail is clearly marked with red blazes on brown Carsonite posts.

One trail counter was placed near the southern entrance to the trail. Over the course of 256 days in 2019, it counted 1,757 people, an average of seven people per day. The largest concentration of people visited
this trail on the weekends, particularly Saturdays, while the fewest people were counted between Tuesday and Thursday (Figure 13). Monthly, the largest number of people used the trail in May and November, with the lowest numbers occurring during January and February (Figure 14). No data was recorded during September and October.


Figure 13: Average number of people recorded for each day of the week.


Figure 14: Total number of people recorded during each month.

## Deam Lake Loop

The Deam Lake Loop is a 6-mile trail around the lake. It is the longest trail at Deam Lake SRA and the only multi-purpose trail. This scenic hike is a complete circle around the lake and much of the property.

Several other trails branch off. Most users access the trail from the parking lot beside the wood barn at the campground entrance or from the horse day-riding area parking lot. Hikers may encounter horse riders and mountain bikers on this trail.

The trail counter was placed on the eastern part of the trail and recorded 1,040 people over 275 days in 2019, about four people per day. As expected, Saturday and Sunday were the most popular days of the week, while Thursday and Friday had the least amount of traffic (Figure 15). Fall was the most active season, with October and November having the highest number of people. February and September were the least popular months while no data was available for June (Figure 16).


Figure 15: Average number of people recorded for each day of the week.


Figure 16: Total number of people recorded during each month.

## Adventure Hiking Trail

The Adventure Hiking Trail (AHT) runs through Harrison-Crawford State Forest and O'Bannon Woods State Park. It is a roughly 25 -mile loop trail that takes about three days to complete. Overnight backpack camping is permitted, as the AHT is the only trail along which camping is permitted. There are five shelters, two primitive sites, and four road crossings along the trail. Four trail counters were placed at different points along the trail, including at the trail's intersection with State Road 462, Old Forest Road, Cold Friday Road, and at the Pioneer Shelter. Pioneer Shelter was excluded due to lack of data.

## Adventure Hiking Trail: State Road 462 Counter

The trail counter at State Road 462 recorded 373 people over all of 2019 ( 316 days), resulting in an average of one person per day. Like other trails, a larger amount of people were counted on Saturday, with much smaller numbers during the week (Figure 17). March was the most popular month for this section of the trail, with 72 people counted. May and April were the second and third most popular months, respectively. The months with the lowest number of people recorded were July and August (14) (Figure 18). No data was available for December.


Figure 17: Average number of people recorded for each day of the week.


Figure 18: Total number of people recorded during each month.

## Adventure Hiking Trail: Old Forest Road Counter

The Old Forest Road trail counter only recorded a few more people over the course of the year (317 days) than the State Road 462 counter. A total of 519 people used this portion of the trail, equaling just two people per day. Most people used the trail on Saturday, with a daily average of around three people. The least popular day was Thursday (Figure 19). On a monthly basis, the highest number of people used this section of the Adventure Hiking Trail in the spring with May being the most popular month. Mid-to-late fall was also a popular time, as November was the second most popular month. January and September were the months with the least traffic (Figure 20). No data was recorded during December.


Figure 19: Average number of people recorded for each day of the week.


Figure 20: Total number of people during each month.

## Adventure Hiking Trail: Cold Friday Road Counter

The Cold Friday Road trail counter recorded a total of 1,235 people over the course of the year (277 days), with an average of four people per day. An average of seven people hiked this portion of the trail. The next most common day was Sunday (about six people). The least frequented day was Monday (Figure 21). November was the most popular month by far with 415 people counted. The summer months of June and August were the months with the least amount of traffic (Figure 22). No data was recorded during December.


Figure 21: Average number of people recorded for each day of the week.


Figure 22: Total number of people recorded during each month.

## Mason Ridge Trail

The Mason Ridge Trail is 2.7 miles long and circles the main forest road in Morgan-Monroe State Forest. A counter was placed near the northern tip of the loop. Over the course of 363 days in 2019, the counter recorded 4,175 people, or 12 people per day. During the year, people used the trail most on Saturdays and Sundays, with Wednesdays and Thursdays having the lowest attendance (Figure 23). October was the most popular month, while January and February recorded the lowest numbers (Figure 24).


Figure 23: Average number of people recorded for each day of the week.


Figure 24: Total number of people recorded in each month.

## Rock Shelter Trail

The Rock Shelter Trail is a 3-mile moderate loop attached to the southwestern part of the Low Gap Loop in Morgan-Monroe State Forest. The counter is located on the northwest part of the trail near its intersection with the Low Gap and Mason Ridge trails. Over the course of 365 days of 2019, the counter recorded 3,119 people, an average of around nine people per day. Like most trails, the most popular days were Saturday and Sunday. Meanwhile, Thursday was its least popular day (Figure 25). March and April were the most popular months for the trail. Additionally, June, July, and August were the months with the least traffic (Figure 26).


Figure 25: Average number of people recorded for each day of the week.


Figure 26: Total number of people during each month.

## Three Lakes Trail

The Three Lakes Trail is a rugged, 10 -mile trail with trailheads at the south end of Cherry Lake and at the Bryants Creek Lake shelter in Morgan-Monroe State Forest. Two counters were placed on this trail, including the Three Lakes Trailhead counter and the counter at Stepp Cemetery.

## Three Lakes Trailhead Counter

The counter is set up near Cherry Lake toward the northeastern part of the Three Lakes Trail. For 280 days in 2019, the counter recorded 1,565 people, resulting in an average of six people per day. On a weekly basis, the days with the highest average usage were Saturday and Sunday (Figure 27). Monthly, March and April were the busiest months. June was the least popular month (Figure 28). No data was available for May.


Figure 27: Average number of people recorded for each day of the week.


Figure 28: Total number of people during each month.

## Three Lakes Trail: Stepp Cemetery Counter

The counter placed at Stepp Cemetery on the eastern side of the Three Lakes Trail in Morgan-Monroe State Forest recorded 6,448 people over the course of 299 days in 2019 for an average of 22 people per day. The most popular day for the use of this section of the trail was Saturday. Meanwhile, Thursday was its least popular day (Figure 29). April and October were the most popular months for this part of the trail. February, March, and May were the months with the least amount of traffic (Figure 30). No data was available for January, November, and December. The particularly large numbers recorded by this counter
are likely due to the fact that it is located at the cemetery, which is a popular attraction at Morgan-Monroe State Forest.


Figure 29: Average number of people recorded for each day of the week.


Figure 30: Total number of people during each month.

## Tree Identification Trail (Interpretive Trail)

The Tree Identification Trail is a one mile self-guided trail in Morgan-Monroe State Forest. There are 27 trees marked along the trail, each featuring a different species. Some stations include descriptions of how different species are identified or how humans benefit from trees and forest products. The trailhead is located at the forest office parking area, and a tree identification booklet is available in the office.

For 333 days in 2019, the Tree Identification Trail counter recorded 722 people, resulting in an average of around two people per day. On a weekly basis, the day with the highest average usage was Saturday (Figure 31). October was the busiest month, while February and December were the least popular months. No data was available for January. (Figure 32).


Figure 31: Average number of people recorded for each day of the week.


Figure 32: Total number of people during each month.

## Tecumseh Trail

The Tecumseh Trail is a 42-mile long trail that begins near the head of Panther Creek and ends at the Morgan-Monroe office. Trailheads are located near Crooked Creek Lake, the north boat ramp at

Yellowwood Lake, at Prange Pond on Dubois Ridge Road, at Bear Lake, and at the Morgan-Monroe office. Camping is allowed in the backcountry area along the Low Gap Trail, at the north end of Yellowwood Lake, and where the trail begins/ends at the Hoosier National Forest. Flooding may block several sections of trail during wet weather.

A total of four counters were placed on this trail; however, two of the counters are located at the junction of the Tecumseh and another trail. These adjacent trails include the Jackson Creek Trail and the Scarce O' Fat Trail. The two counters not connected to other trails are located at Bear Lake and another point north of the Jackson Creek Trailhead. The Tecumseh Trailhead counter was not included due to lack of data.

## Tecumseh Trail: Bear Lake Counter

Starting in the northern section of the trail, the first counter at Bear Lake recorded 884 people over 294 days. Based on these data, on average, three people used the trail per day. Out of all the days of the week, Saturdays were the most popular day with Sunday being the next busiest day (Figure 33). October was the most popular month for this section of the trail, with 195 people counted on the trail. July and January had the least traffic (Figure 34). No data was available for May and June.


Figure 29: Average number of people recorded for each day of the week.


Figure 30: Total number of people recorded during each month.

## Tecumseh Trail: Jackson Creek Trail Counter

The Jackson Creek Trail is a 1.5 mile, self-guided interpretive trail that traverses a variety of terrain and forest types. This trail wanders through a variety of habitat types, including marsh, pine forests, and central hardwood forest. The trail begins $3 / 4$ mile north of the state forest office. The counter for this trail was placed at its convergence with the Tecumseh Trail on the eastern side of the loop.

A total of 2,082 people were counted using the trail over the course of 365 days in 2019, an average of about six people daily. As expected, the daily averages indicate most people use the trail on Saturday and Sunday, with other days showing significantly less traffic (Figure 35). April and August were the two most popular months with October and June being the least popular (Figure 36).


Figure 31: Average number of people recorded for each day of the week.


Figure 32: Total number of people recorded during each month.

## Tecumseh Trail: Scarce O' Fat Trail Counter

The Scarce O' Fat Trail is a 4-mile trail that spurs off of the Tecumseh Trail. Like the Jackson Creek Trail, the counter for this trail was located at its convergence with the Tecumseh Trail. Over all of 2019 ( 365 days), , 2,704 people were counted by the trail counter, making the average daily total about seven people. The weekends tended to be the most popular days, with an average of about 16 people on Saturdays and 14 people on Sundays (Figure 37). A monthly view of the data shows that October, April, and August were the months in which the trail was most heavily used. January, February, and December were the months with the least traffic (Figure 38).


Figure 33: Average number of people recorded for each day of the week.


Figure 34: Total number of people recorded during each month.

## Twin Lakes Trail

The Twin Lakes Trail is a 2.3 mile hiking trail of moderate difficulty that runs north and south along the eastern edge of Ferdinand State Forest, passing by Coyote Hollow and Fossil Lake. The majority of the trail passes through scenic hardwood and pine forests before ending at the Sycamore Shelter. The trail counter is located near the southern trailhead and recorded 1,065 people over the course of 365 days in 2019 for an average of three people per day. As expected, the daily averages indicate most people used the trail on the weekends, with Saturday being the most popular day and Thursday being the day with the
least amount of traffic (Figure 39). March and May were the two most popular months with February and November being the least popular (Figure 40).


Figure 35: Average number of people recorded for each day of the week.


Figure 36: Total number of people recorded during each month.

## Horse Trail

Owen-Putnam State Forest offers three horse trails consisting of approximately 13 miles. The Bridle Loop (Blue Trail) begins at the horse campground and extends north to the Rattlesnake Campground area and then loops back. The Pleasant Grove (Orange Trail) begins in the horse campground, and highlights include an old cemetery and Pleasant Grove Nature Preserve. The Sandstone Bluff (Red Trail) features a

50 -foot sandstone bluff and waterfall. All trails are located in the northern portion of the property. The trail counter was placed near the southern-most extent of the horse trails where the three separate trails converge.

Over the course of 185 days in 2019, the counter recorded 794 people for an average of four people per day. The weekends were the most popular, with an average of seven people on Saturdays and six people on Sundays (Figure 41). A monthly view of the data shows that August and September were the months in which the trail was most heavily used. January and February were the months with the least traffic (Figure 42). No data was available for March, October, November, and December.


Figure 37: Average number of people recorded for each day of the week.


Figure 38: Total number of people recorded during each month.

## Poplar Top Trail

Poplar Top is a 1.5 mile trail in the southern portion of Owen-Putnam State Forest. Over the course of 360 days in 2019, 197 people were recorded for an average daily total of about one person. Unusually, the middle of the week was the most popular time for visitors to this trail, although the overall numbers recorded by the trail counter were very low (Figure 43). July and October were the most popular months with October, November, and December being the months with the lowest numbers (Figure 44).


Figure 39: Average number of people recorded for each day of the week.


Figure 40: Total number of people recorded during each month.

## Pike River Trail

The Pike River Trail is a 2.6 mile loop in the northeast corner of Pike State Forest. Over the course of 347 days in 2019, 288 people were recorded for an average of about one person per day. The weekends were the most popular, with Sunday having the highest averages. The other days had much lower averages (Figure 45). October was the most popular month for the trail, with January and February being the months with the lowest amount of traffic (Figure 46).


Figure 41: Average number of people recorded for each day of the week.


Figure 42: Total number of people recorded during each month.

## Three Falls Trail

The Three Falls Trail at Salamonie River State Forest is a 0.75 mile loop out to the waterfalls and back to the parking lot. The Three Falls Trail connects to and runs alongside the Blue Trail for a period of time. This connection gives hikers the option of exploring more of the property on the Blue Trail. The trail counter for the Three Falls Trail is located near the first waterfall, where the Three Falls Trail and the Blue Trail intersect.

Over the course of 280 days in 2019,876 people were counted for an average of three people per day. Saturday was the most popular day for the trail by far with Thursday being the least popular day (Figure 47). October and April were the most popular months while February and September were the months with the least amount of traffic (Figure 48). No data was available for November and December.


Figure 43: Average number of people recorded for each day of the week.


Figure 44: Total number of people recorded during each month.

## Overview of All Trail Counters in 2019

## Trail Counter Totals

Of the 34 trail counters placed along trails on state forest property, only 24 counters had enough data to be useful for analysis. Out of these, the counter with the highest levels of traffic (projected by multiplying the average daily total by 365 to account for counters with less than 365 days of data) was the Pixley Knob on the Knobstone Trail (8,347 people) with the Stepp Cemetery counter close behind at 7,871 people (Figure 49). Additionally, the Rock Shelter Trail, Mason Ridge Trail, and Jackson Road Trailhead counters all had projected numbers over 3,000 .

Seven of the remaining counters had projected numbers more than 2,000. These include the Scarce O' Fat and Jackson Creek trail counters on the Tecumseh Trail; the Rock Shelter Trail counter; the Three Lakes Trail counter; the Leota, Spurgeon, and Elk Creek trailhead counters on the Knobstone Trail; and the Deam Lake Vista Trail counter.

The Bear Lake Tecumseh Trailhead, Three Falls Trail, Owen-Putnam State Forest Horse Trail, New Chapel Trailhead, Twin Lakes Trail, Deam Lake Loop, and Cold Friday Road counters all had projected numbers greater than 1,000.

Finally, the Pike River Trail, Poplar Top, Morgan-Monroe State Forest Tree Identification Trail, Old Forest Road, and State Road 462 counters each had projected numbers less than 1,000 , with the Poplar Top counter having the smallest amount at 200. For 2019, a total of 54,885 people were recorded by the trail counters on the noted trails. Note: in the following graphs and tables, (K) stands for Knobstone Trail, (T) stands for Tecumseh Trail, (TL) stands for the Three Lakes Trail, and (AH) stands for the Adventure Hiking Trail.


Figure 45: Projected totals for each trail counter.

## Monthly Totals for All Trail Counters

After adding the monthly totals for each of the trail counters, spring and fall were the most popular times for trail use on state forest properties. April had the most traffic in 2019 with 5,631 people recorded. October and November also had good numbers, with 5,264 and 4,932 people recorded respectively. Alternatively, the months with the least amount of traffic (January, February, June, and December) indicated that people are less inclined to use the trails when the weather is very hot or very cold.


Figure 46: Sums of the monthly totals of all trail counters.

## 2018 and 2019 Monthly and Yearly Comparisons

To compare trail traffic between 2018 and 2019, only the trail counters with data from both years were used, including the counters from the Bear Lake Trailhead (T), the Cold Friday Road Trailhead (AH), the Deam Lake Loop, the Deam Lake Vista Trail, the Jackson Road trailhead (K), the Jackson Creek Trailhead (T), the Leota Trailhead (K), the Mason Ridge Trail, the New Chapel Trailhead (K), the Old Forest Road Trailhead (AH), the Rock Shelter Trail, the Scarce O' Fat Trailhead (T), the Spurgeon Trailhead (K), and the State Road 462 Trailhead (AH). The remaining trails were excluded, as no useful comparison could be made due to missing data in either 2018 or 2019. The data used to compare traffic from one year to the next were the projected yearly totals while the monthly comparisons between 2018 and 2019 used the raw totals without any projection.

Comparison of Overall Monthly Totals for 2018 and 2019

Based on the trails with data for both 2018 and 2019, four months had an increase in traffic from 2018 to 2019 and seven had decreased traffic (Figure 51). The month with the highest increase in traffic was November, with a $45 \%$ increase, while February had the second highest increase at $38 \%$. June was the month with the sharpest decrease at $45 \%$, with September and October having the next most significant decreases at $22 \%$. However, this data should be considered in light of the fact that 2019 had more months with missing data. For example, for the month of June, six of the 15 trails were missing data in 2019 compared to the same month in 2018, when no trails had missing data. To allow the viewer to consider this missing data in the reading of Figure 51, two charts have been included which have all of the monthly totals for each trail during 2018 and 2019 (Figures 52 \& 53).


Figure 47: Percentage of Change between the sums of all monthly totals for 2018 and 2019.

| TRAILS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| THREE LAKES TRAIL | 51 | 183 | 143 | 231 | 243 | 167 | 145 | 137 | 243 | 157 | 97 | 117 |
| STATE ROAD 462 TH (AH) | 34 | 8 | 37 | 57 | 100 | 21 | 14 | 27 | 16 | 48 | 56 | 38 |
| SPURGEON TH (K) | 266 | 42 | 147 | 406 | 344 | 238 | 304 | 184 | 231 | 329 | 241 | 99 |
| SCARCE O' FAT TH (T) | 82 | 104 | 158 | 328 | 235 | 137 | 194 | 237 | 350 | 365 | 209 | 124 |
| ROCK SHELTER TRAIL | 170 | 144 | 278 | 319 | 81 | 129 | 226 | 85 | 191 | 486 | 341 | 296 |
| OLD FOREST ROAD (AH) | 19 | 20 | 74 | 50 | 73 | 45 | 25 | 30 | 32 | 64 | 58 | 18 |
| NEW CHAPEL TH (K) | 17 | 49 | 68 | 188 | 121 | 17 | 15 | 30 | 53 | 85 | 63 | 23 |
| MASON RIDGE TRAIL | 110 | 188 | 399 | 477 | 401 | 178 | 274 | 148 | 206 | 296 | 264 | 145 |
| LEOTA TH (K) | 30 | 39 | 144 | 227 | 406 | 195 | 207 | 76 | 119 | 238 | 124 | 58 |
| JACKSON CREEK TH (T) | 64 | 48 | 192 | 224 | 136 | 114 | 149 | 109 | 324 | 400 | 271 | 170 |
| JACKSON ROAD TH (K) | 17 | 14 | 98 | 159 | 644 | 545 | 108 | 28 | 68 | 179 | 71 | 95 |
| DEAM LAKE VISTA TRAIL | 19 | 12 | 38 | 106 | 355 | 104 | 280 | 123 | 261 | 408 | 188 | 34 |
| DEAM LAKE LOOP | 90 | 82 | 140 | 122 | 105 | 96 | 111 | 47 | 115 | 180 | 175 | 67 |
| COLD FRIDAY ROAD (AH) | 42 | 32 | 102 | 145 | 123 | 16 | 14 | 50 | 46 | 159 | 192 | 38 |
| BEAR LAKE TH <br> (T) | 316 | 0 | 816 | 533 | 16 | 290 | 271 | 126 | 252 | 385 | 80 | 38 |
| 2018 TOTAL | 1327 | 965 | 2834 | 3572 | 3383 | 2292 | 2337 | 1437 | 2507 | 3779 | 2430 | 1360 |

Figure 52: 2018 monthly totals.

| TRAILS | JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| three lakes TRAIL | 96 | 84 | 231 | 248 | 0 | 60 | 92 | 105 | 172 | 154 | 168 | 156 |
| STATE ROAD 462 TH (AH) | 48 | 19 | 72 | 50 | 64 | 19 | 11 | 5 | 13 | 44 | 28 | 0 |
| SPURGEON TH (K) | 69 | 107 | 207 | 358 | 398 | 273 | 232 | 136 | 230 | 263 | 219 | 98 |
| $\begin{aligned} & \text { SCARCE O' FAT } \\ & \text { TH (T) } \end{aligned}$ | 108 | 82 | 274 | 312 | 226 | 261 | 157 | 300 | 277 | 375 | 234 | 98 |
| ROCK SHELTER TRAIL | 274 | 368 | 548 | 672 | 281 | 87 | 8 | 60 | 118 | 254 | 263 | 186 |
| OLD FOREST ROAD (AH) | 13 | 24 | 55 | 85 | 100 | 32 | 24 | 15 | 14 | 64 | 93 | 0 |
| NEW CHAPEL TH (K) | 26 | 70 | 78 | 0 | 144 | 0 | 186 | 90 | 4 | 103 | 43 | 29 |
| MASON RIDGE TRAIL | 190 | 104 | 448 | 400 | 445 | 297 | 326 | 278 | 437 | 694 | 316 | 240 |
| LEOTA TH (K) | 32 | 34 | 155 | 127 | 224 | 0 | 217 | 85 | 261 | 304 | 98 | 69 |
| JACKSON CREEK TH (T) | 141 | 151 | 170 | 294 | 199 | 81 | 180 | 253 | 156 | 9 | 225 | 223 |
| JACKSON ROAD TH (K) | 128 | 48 | 319 | 365 | 121 | 0 | 0 | 53 | 39 | 153 | 871 | 427 |
| DEAM LAKE VISTA TRAIL | 42 | 35 | 59 | 156 | 569 | 130 | 62 | 259 | 0 | 0 | 341 | 104 |
| DEAM LAKE LOOP | 84 | 40 | 91 | 98 | 95 | 0 | 93 | 110 | 56 | 131 | 150 | 92 |
| $\begin{aligned} & \text { COLD FRIDAY } \\ & \text { ROAD (AH) } \end{aligned}$ | 24 | 90 | 81 | 173 | 112 | 21 | 28 | 17 | 88 | 186 | 415 | 0 |
| BEAR LAKE TH <br> (T) | 65 | 75 | 76 | 109 | 0 | 0 | 45 | 73 | 98 | 195 | 70 | 78 |
| 2019 TOTAL | 1340 | 1331 | 2863 | 3447 | 2978 | 1261 | 1661 | 1839 | 1963 | 2929 | 3533 | 1800 |

Figure 53: 2019 monthly totals.

Comparison of Trail Counter Totals for 2018 and 2019

Of the trails with data from both 2018 and 2019, 11 trail counters showed an increase in traffic, while five counters showed a decrease in traffic (Figure 54). The trails with the highest percentage of increase in traffic were the Leota Trailhead, at a $966 \%$ increase, and the Low Gap counter on the Tecumseh Trail with a $464 \%$ increase. The trails with the greatest decrease in traffic were the Bear Lake Tecumseh Trailhead, at a $76 \%$ decrease, and the Spurgeon Trailhead at a $9 \%$ decrease. The overall projected totals for the 16 trails that had data in both 2018 and 2019 indicate a $28 \%$ increase in traffic over all of the trails.


Figure 54: Percentage of change in projected totals for each trail counter between 2018 and 2019.
Total projected traffic numbers for 2018 and 2019 indicate an increase in overall trail traffic in 2019, with 41,812 people in 2018 and 54,885 people in 2019 (Figure 55). However, this large difference in total traffic numbers is at least partially due to the increase in trails with usable data in 2019. For example, in 2018, 20 trails had sufficient data for analysis while in 2019, 24 trails were used. Looking at all trails that had data for each year, there was a $31 \%$ increase in traffic from 2018 to 2019. However, looking at only the 16 trails that had data for both years (see list above), there was a 7\% increase in traffic from 2018 to 2019. Therefore, despite the fact that there were more trails analyzed for 2019, when the number of trails for both years was equalized, there was still an overall increase in traffic (although it was much less drastic).


Figure 55: Difference in total projected traffic numbers for 2018 and 2019.

## Appendices:

A: Jackson-Washington \& Clark State Forest
Knobstone Hiking Trail and Counter Locations
B: Deam Lake State Recreation Areas
Hiking Trails and Counter Locations
C: Harrison-Crawford State Forest
Adventure Hiking Trail and Counter Locations
D: Morgan-Monroe State Forest
Hiking Trails and Counter Locations
E: Yellowwood State Forest
Hiking Trails and Counter Locations
F: Ferdinand State Forest
Hiking Trails and Counter Locations
G: Owen-Putnam State Forest
Hiking Trails and Counter Locations
H: Pike State Forest
Hiking Trails and Counter Locations
I: Salamonie River State Forest
Hiking Trails and Counter Locations

Appendix A: Jackson-Washington \& Clark State Forest and Knobstone Hiking Trail and Counter Locations

## Jackson-Washington \& Clark State Forests Knobstone Hiking Trail Counters



Appendix B: Deam Lake State Recreation Areas Hiking Trails and Counter Locations

## Deam Lake State Recreation Area Hiking Trail Counters



## Harrison-Crawford State Forest <br> Adventure Hiking Trail Counters



Appendix D: Morgan-Monroe State Forest Hiking Trails and Counter Locations

## Morgan-Monroe State Forest Hiking Trail Counters



Appendix E: Yellowwood State Forest Hiking Trails and Counter Locations

## Yellowwood State Forest Hiking Trail Counters



Appendix F: Ferdinand State Forest Hiking Trails and Counter Locations

Ferdinand State Forest
Hiking Trail Counters


## Owen-Putnam State Forest <br> Hiking Trail Counters



## Pike State Forest <br> Hiking Trail Counters



## Salamonie State Forest Hiking Trail Counters




