

Pass Powderkeg Trail Traffic Report

Summer 2023



Photo: Peak to Prairies Photography

Prepared by:

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www.uroc.ca

Introduction

This report covers trail traffic surveys on Pass Powderkeg trails for the period May 1 to October 31, 2023.

This is the tenth in a series of summer trail usage reports. A comprehensive description of the equipment and methodology is available in a previous report dated November 2014.

Equipment and Methodology

Pass Powderkeg

Eight trail traffic counters were installed - referred to as PPTC01, PPTC02, PPTC03, etc. (Pass Powderkeg Traffic Counter 01 and so on). Trail counters were checked and data download approximately once every month. This is the first summer that PPTC08 and PPTC09 have been installed.

PPTC01 was installed on the Double Dirt trail in the woods below the water tower

PPTC02 was installed on the Double Dirt trail between the water tower and the Dale Strandquist trail

PPTC03 was installed on the Chainsaw Massacre trail above the Dale Strandquist trail

PPTC04 was installed on the lower half of Berma-Grin

PPTC05 was installed around mid-hill on the Buck-50 trail

PPTC06 was installed lower hill on the Buck-50 trail.

PPTC08 was installed mid-way down Nothing to Luge

PPTC09 was installed mid-way down Electric Monkey

Results

As usual, when discussing the results from IR counters, we refer to "counts" not "users". We cannot tell whether a single user passes a counter once going outbound and a second time on their return (i.e. counted twice) or whether that user returned by a different route (only counted once).

In general, the data has received a limited amount of verification and some processing to remove obvious errors. The verification was simply that of comparing counted traffic with known traffic i.e. when the number of participants and approximate time of passage was known.

The IR counters will count people, large dogs, deer and other large animals i.e. any reasonably large warm body. It cannot indicate whether the user is ascending or descending the trail or whether a person is hiking, biking or using snowshoes. For trails that are designated downhill-only and biking-only (Berma Grin, Nothing to Luge, and Electric Monkey), we can assume that most counts are downhill mountain bikers.

In the histograms presented in the Appendix A, for "Day of the Week", Sunday is represented by "1", Monday by "2" etc. The histograms show normalized data where, for example, the count for a particular day of the week was divided by the total count i.e. its proportion of the total. The normalized data provides a better basis for comparing the distributions for the different locations.

For the "Time of Day" histograms, the first time period is from midnight to 02:59, the second from 03:00 to 05:59 etc. It is probably reasonable to assume that most counts after 10 pm and before 6 am are animal movements. The overnight counts have been typically 1% to 2% of the total for each data set (after eliminating probable animal movements).

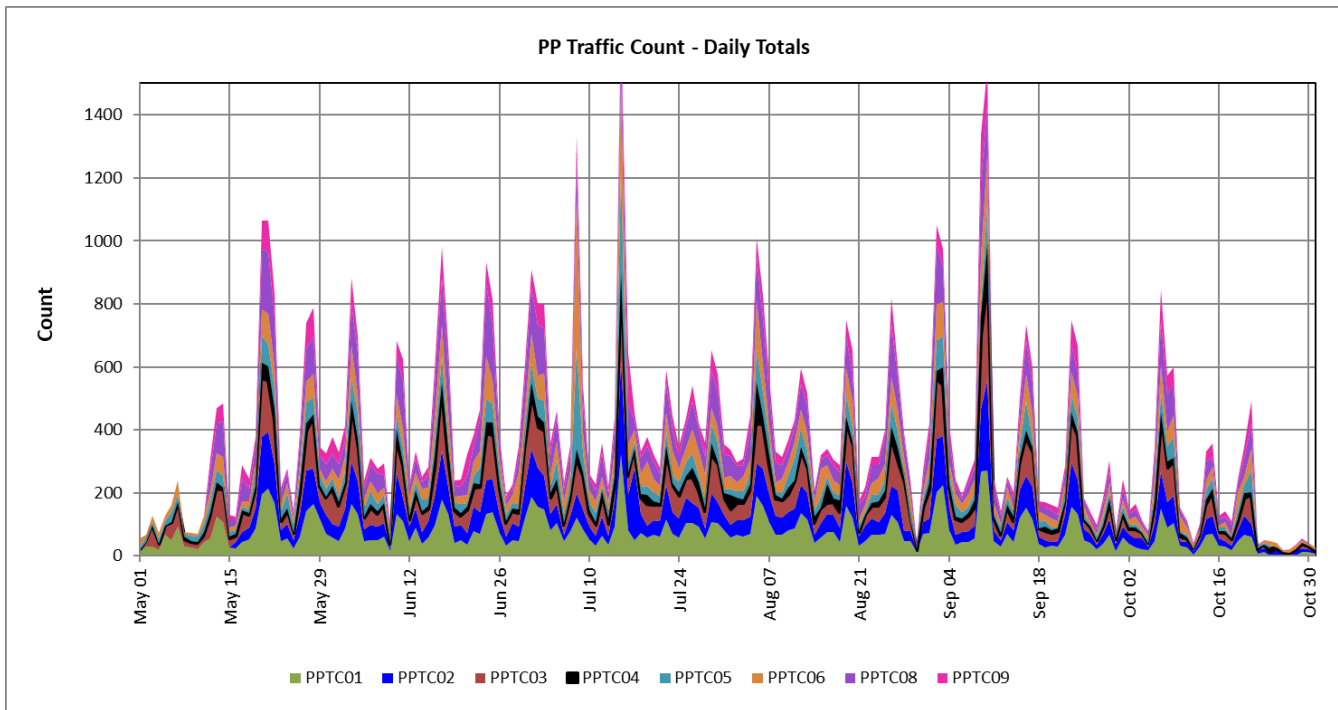


Figure 1 - Traffic Count, Daily Totals

- PPTC01** Double Dirt trail in the woods below the water tank
- PPTC02** Double Dirt trail between the water tank and the Dale Strandquist trail
- PPTC03** Chainsaw Massacre trail above the Dale Strandquist trail
- PPTC04** Berma-Grin below lower entrance
- PPTC05** Buck-50 trail above the mid-hill connection
- PPTC06** Buck-50 trail near Southmore
- PPTC07** Spare Change (this location no longer used)
- PPTC08** Nothing to Luge below luge track crossing
- PPTC09** Electric Monkey below Rad’s Drop ski run crossing

The above stacked area graph gives a general idea of the traffic pattern through the summer season. Individual users may pass several counters, so the daily totals are not helpful in quantifying unique users; it is the pattern of usage that is illustrated – busy weekends, periods of low usage, events, etc.

Holidays and Events Summer 2023

Victoria Day	May 22, 2023
Canada Day	July 1, 2023
Sinister 7	July 8, 2023
Sole Survivor Trail Run	July 15, 2023
TransRockies SingleTrack 6	July 15 & 16, 2023
Crowsnest 100	August 5, 2023
Labour Day	September 4, 2023
Bee’s Knees Enduro	September 9 & 10, 2023

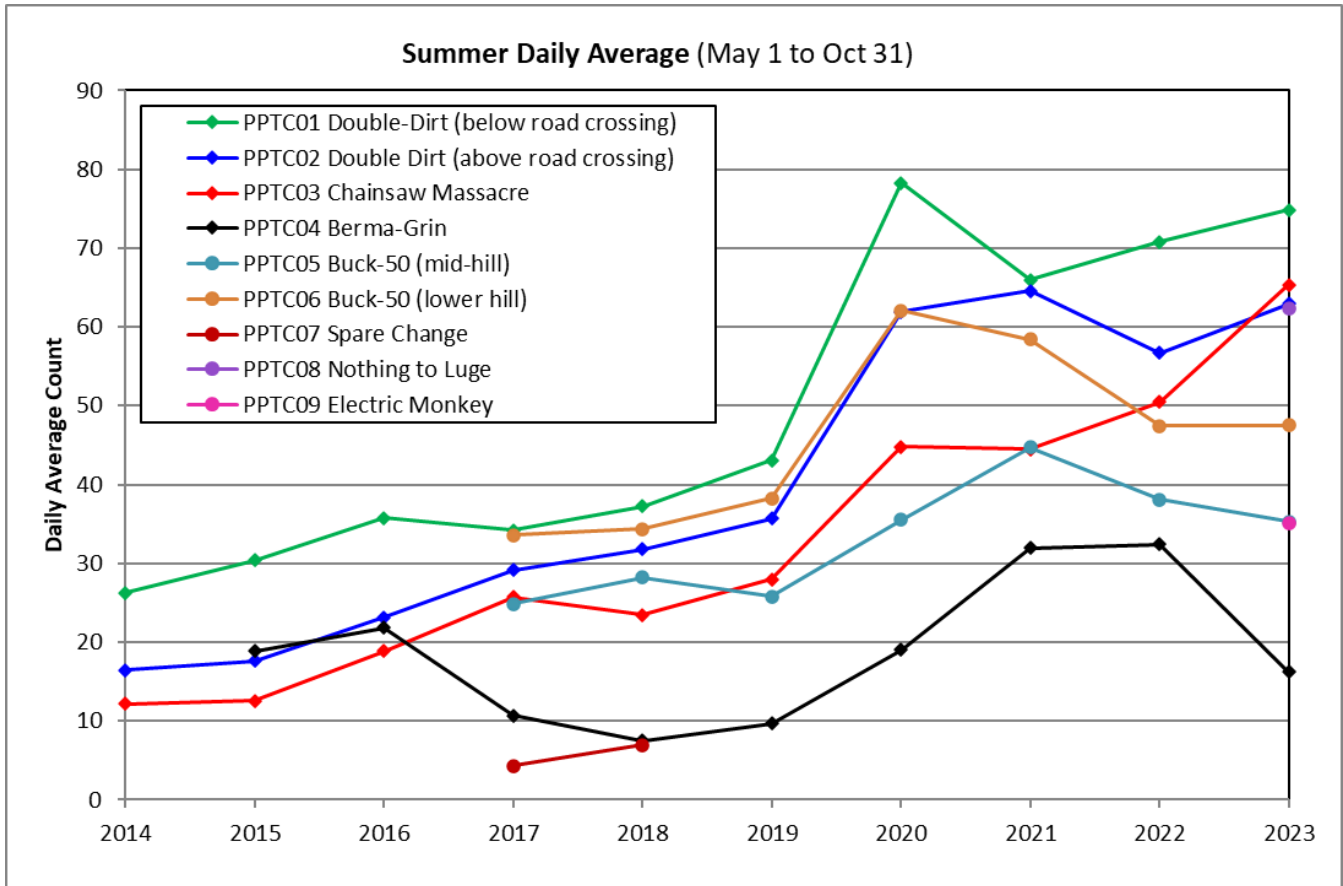


Figure 2 - Summer Daily Average

Summary Table							
Counter	Trail	Start Date	End Date	No. of Days	Counts		
					Total	Avg Daily	Max Daily
PPTC01	Double Dirt-spresso	May 01	Oct 31	184	13,774	75	324
PPTC02	Double Dirt-spresso	May 16	Oct 31	169	10,615	63	294
PPTC03	Chainsaw Massacre	May 01	Oct 31	184	12,030	65	317
PPTC04	Berma-Grin	May 08	Oct 31	177	2,872	16	131
PPTC05	Buck-50, mid-hill	May 01	Oct 31	184	6,489	35	325
PPTC06	Buck-50, lower hill	May 01	Oct 31	184	8,742	48	479
PPTC08	Nothing to Luge	May 11	Oct 31	173	10,820	62	240
PPTC09	Electric Monkey	May 11	Oct 31	173	6,081	35	161

Figure 3 - Summary Statistics

Summary Table Notes:

1. Start Date – start of reporting period or when counter was first installed; End Date – end of reporting period or when no further data was available.
2. No. of days – number of days between Start and End when valid data was available. During the winter, some counters get obscured by snow i.e. no data available for some periods.

Discussion of Results

The data provides a good general indication of the overall level of traffic and is useful for year-to-year comparisons. The IR counters provide no meaningful distinction between types of users and undoubtedly includes some animal counts. However, despite the limitations of the IR counters, the installations have remained consistent for up to nine years, so the data is considered to be valid for year-to-year comparisons. From a trail manager's perspective, the data helps to show which trails are favoured by users and on what type of trail the club should focus its development activities.

The summer of 2023 is the first season where trail counters have been installed on Nothing to Luge and Electric Monkey. With these trails being designated and signed as downhill-only and bike-only, we can assume that most traffic counted on these trails, along with Berma Grin, is travelling on bikes in a downhill direction.

The 2023 summer biking season overall showed similar levels of trail traffic to that of 2022, however the addition of new trail counters on Nothing to Luge and Electric Monkey has made year-over-year comparison more difficult. If we look at only the six counters where data has been collected long-term, the traffic is almost identical to summer 2022. There were a total of 54,522 counts in 2023 versus 54,196 counts in 2022, on just the six counters that have been installed in previous years. With the addition of counters on Nothing to Luge and Electric Monkey, the total for all eight counters was 71,423 counts in 2023.

With the addition of Nothing to Luge and Electric Monkey trails (opened fall 2022), traffic patterns within the Pass Powderkeg network have changed slightly. In observing bike traffic patterns, we have noticed that many people bike up the Pass Powderkeg road for the most efficient access to the Nothing to Luge trail. This trail also sees some shuttle traffic, as people drive up the Pass Powderkeg road to drop riders off and pick them up at the bottom. These users who bike or drive up the road would not be counted by any trail counters on their way up, as they're not travelling on single track trails. It is also worth noting this year that traffic on Chainsaw Massacre (PPTC03) has surpassed traffic on Double Dirt above the road crossing (PPTC02). This may indicate that users are travelling on the road as a more efficient access route, and that people may be parking or getting dropped off at the Pass Powderkeg day lodge parking lot for their ride.

In terms of other comparisons, Berma Grin saw a significant decrease in traffic in 2023. This can likely be attributed to the addition of the Nothing to Luge trail. Berma Grin is a more advanced flow trail that does not always appeal to intermediate riders, and the addition of Nothing to Luge provides these intermediate riders with an easier flow trail that allows for progression. Trails more often used for uphill access (Double Dirt and Chainsaw) saw increases in traffic, while Buck 50 saw either steady or a slight decrease in traffic. This is likely due to riders having additional downhill options to ride Electric Monkey from the top of the hill.

This summer saw the return of some larger events that utilized the Pass Powderkeg trail system. These events included Sinister 7, Sole Survivor Trail Race, Trans Rockies SingleTrack 6, Crowsnest 100, and UROC's own Bee's Knees Enduro. The high amount of traffic on trails during these events can be seen in Figure 1 (Traffic Count, Daily Totals).

The Pass Powderkeg day lodge started offering food and drinks on weekends this summer (Fri-Sun). This seemed to be a popular service used by mountain bikers and hikers using the trails and may also have contributed to a growth in the number of people using the day lodge parking lot as their starting point for rides. UROC and Pass Powderkeg also collaborated on some Friday night races / social events this summer, which generally attracted 20-30 racers each evening.

Appendix A provides further details for each counter.

Recommendations

Trail usage surveys will be continued this coming winter to further identify trends, and we expect to continue surveys in the summer season in future years.

Other approaches to analyzing trail traffic data should also be considered, in addition to the data provided by these IR counters at Pass Powderkeg. An increasingly popular approach to analyzing trail traffic is to combine counter data with Strava and Trailforks heat maps. Heat maps show traffic on trails throughout Crowsnest Pass by a large variety of users. Heat maps may be used as a tool to understand traffic patterns and popularity of trails that do not have trail counters on them. It is unknown what proportion of users track their activities with Trailforks and Strava, so it is difficult to get overall trail traffic numbers from these apps. However, they seem to demonstrate overall traffic trends among different trail user groups.

Strava Metro may be able to provide extensive trail data to parties such as Forestry, Parks and Tourism and the Municipality of Crowsnest Pass. Organizations such as UROC do not seem to be able to obtain access to this data, but we will keep up to date on the latest developments.

Appendix A: Additional Graphs for Pass Powderkeg Trail Traffic Summer 2023

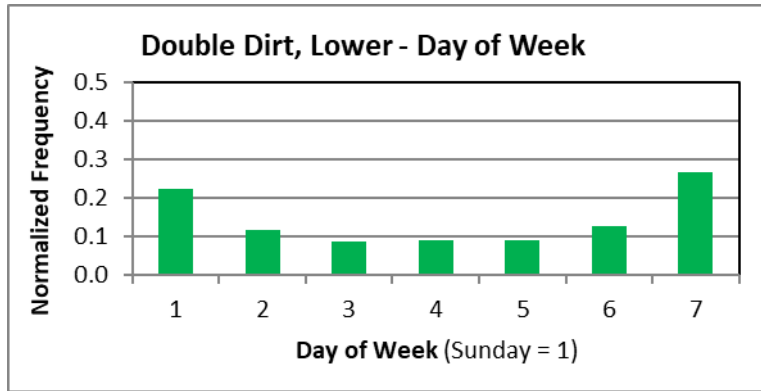


Figure 4

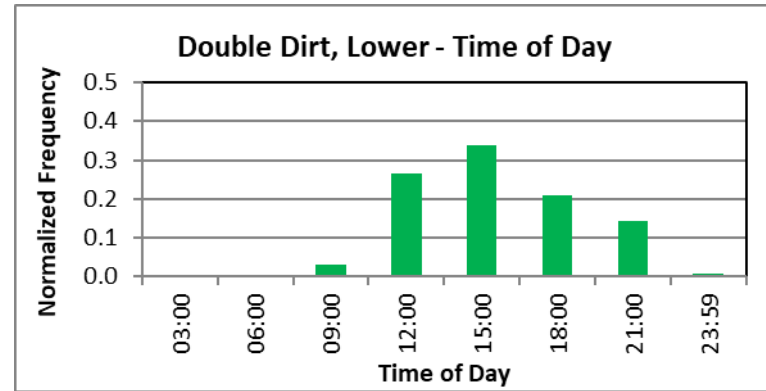


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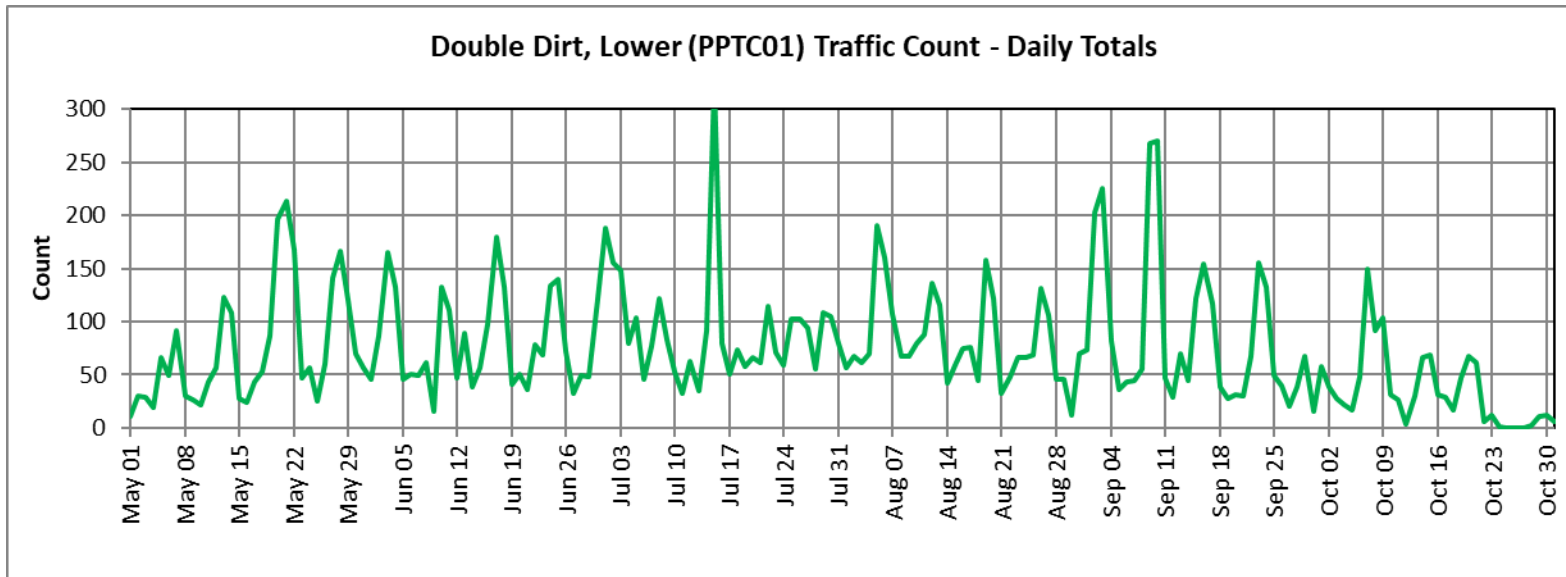


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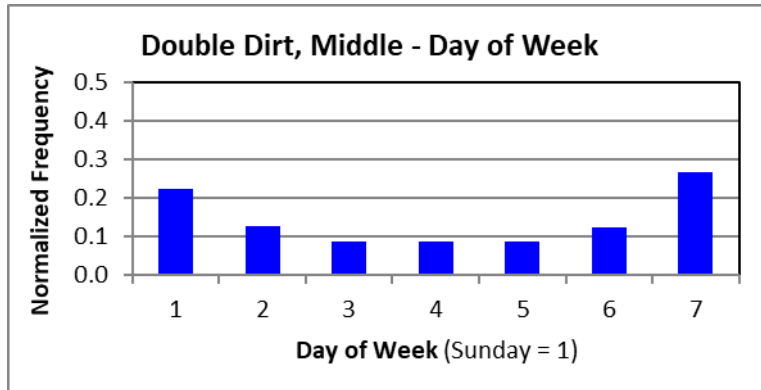


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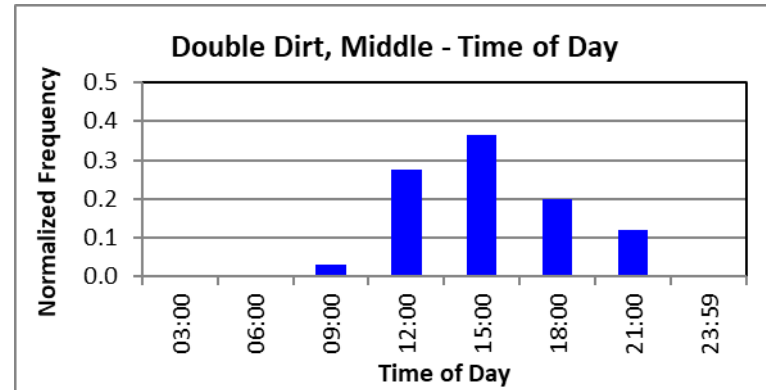


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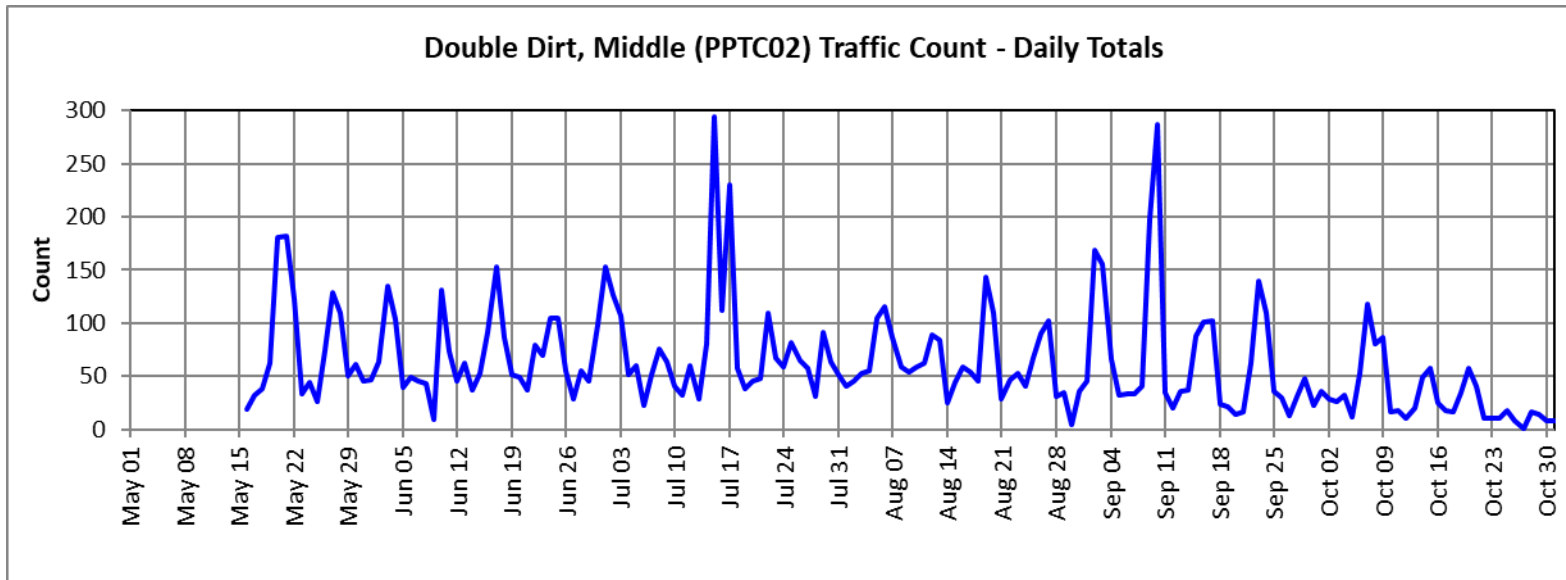


Figure 9

*PPTC02 had an error restarting after data collection early May.

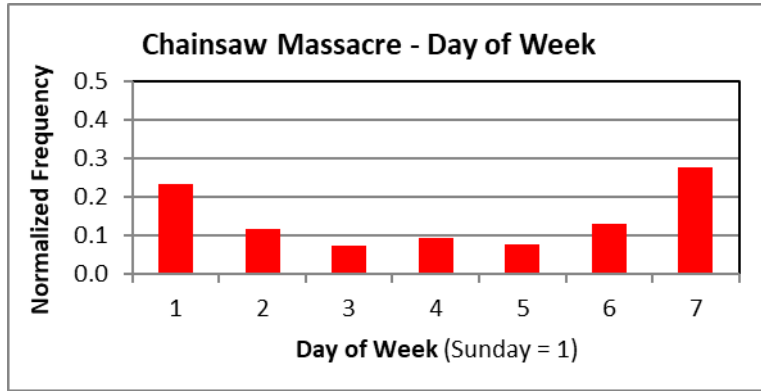


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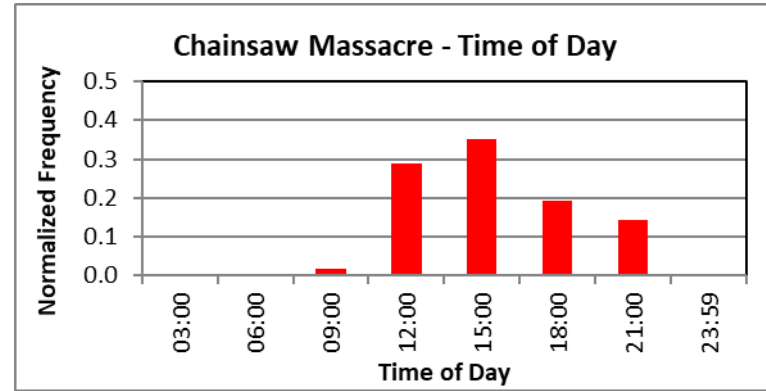


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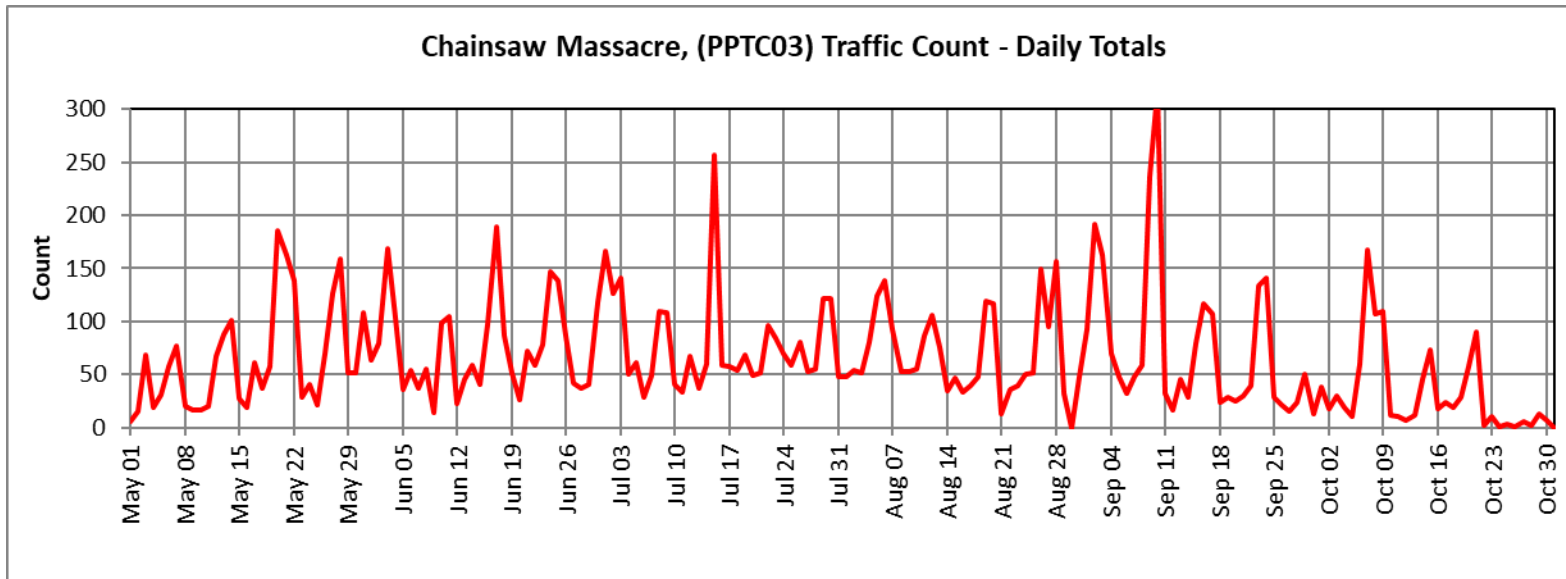


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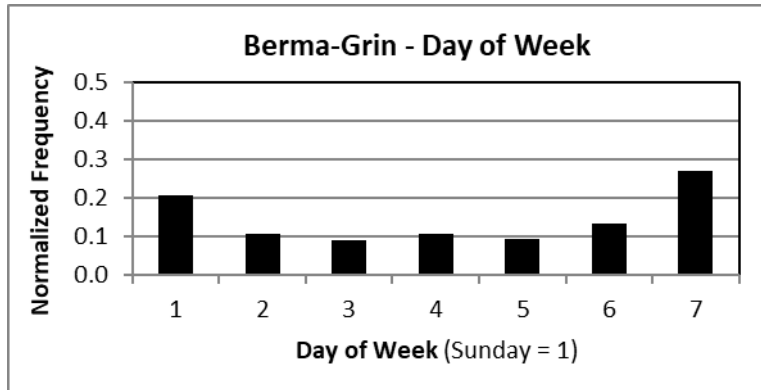


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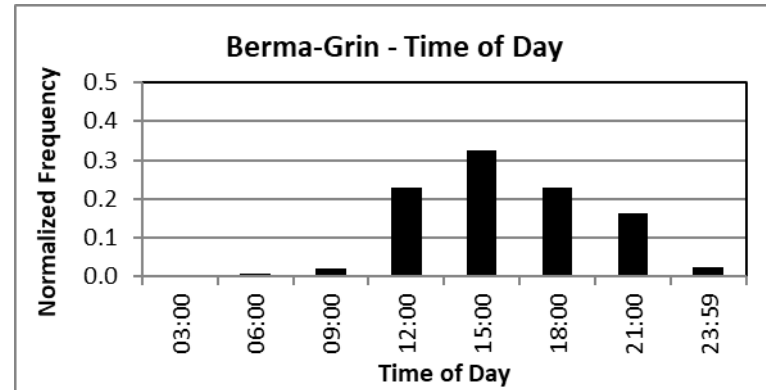


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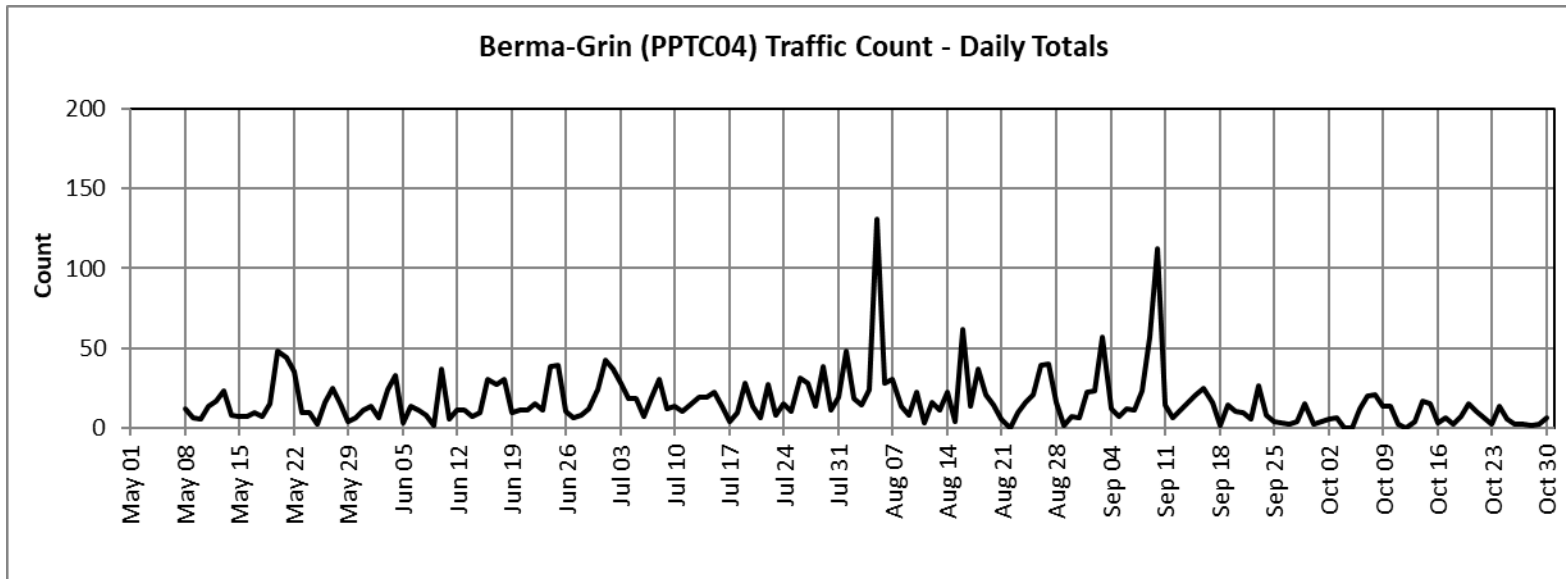


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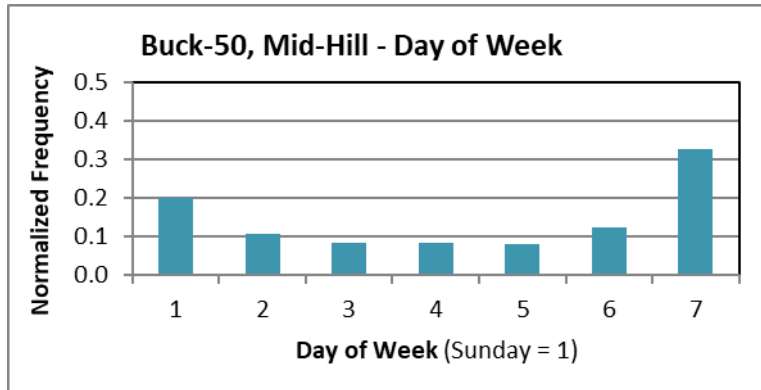


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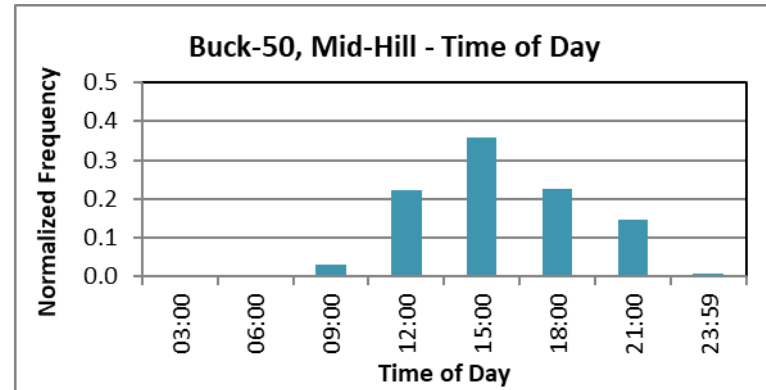


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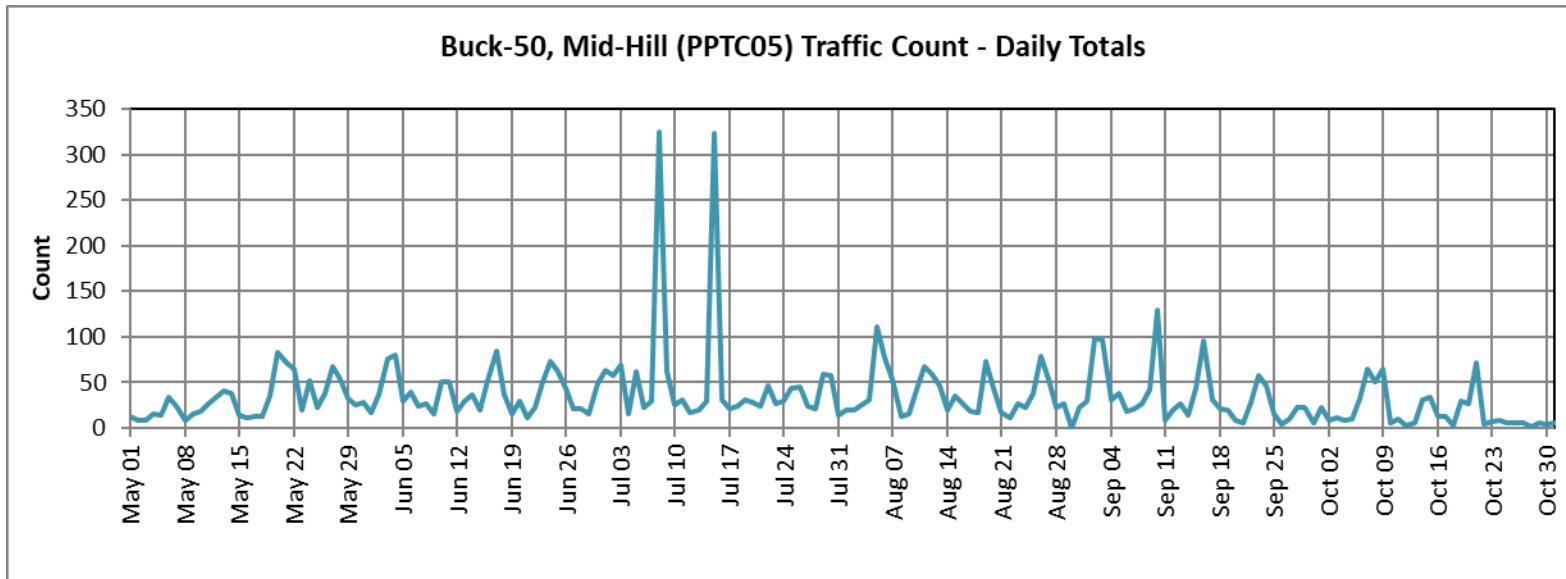


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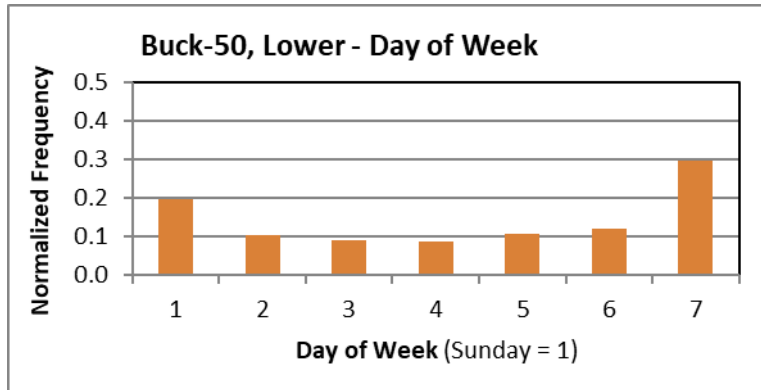


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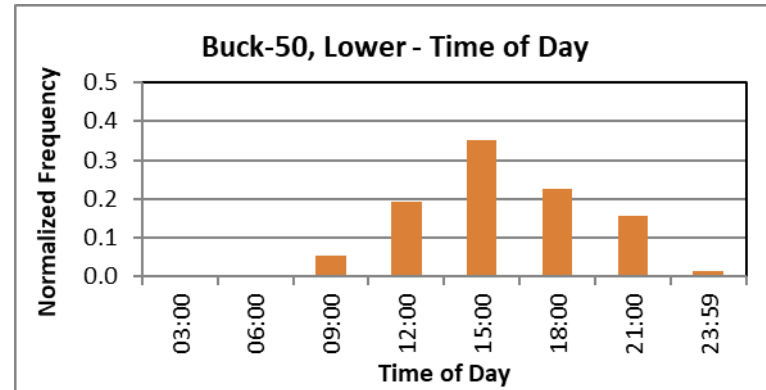


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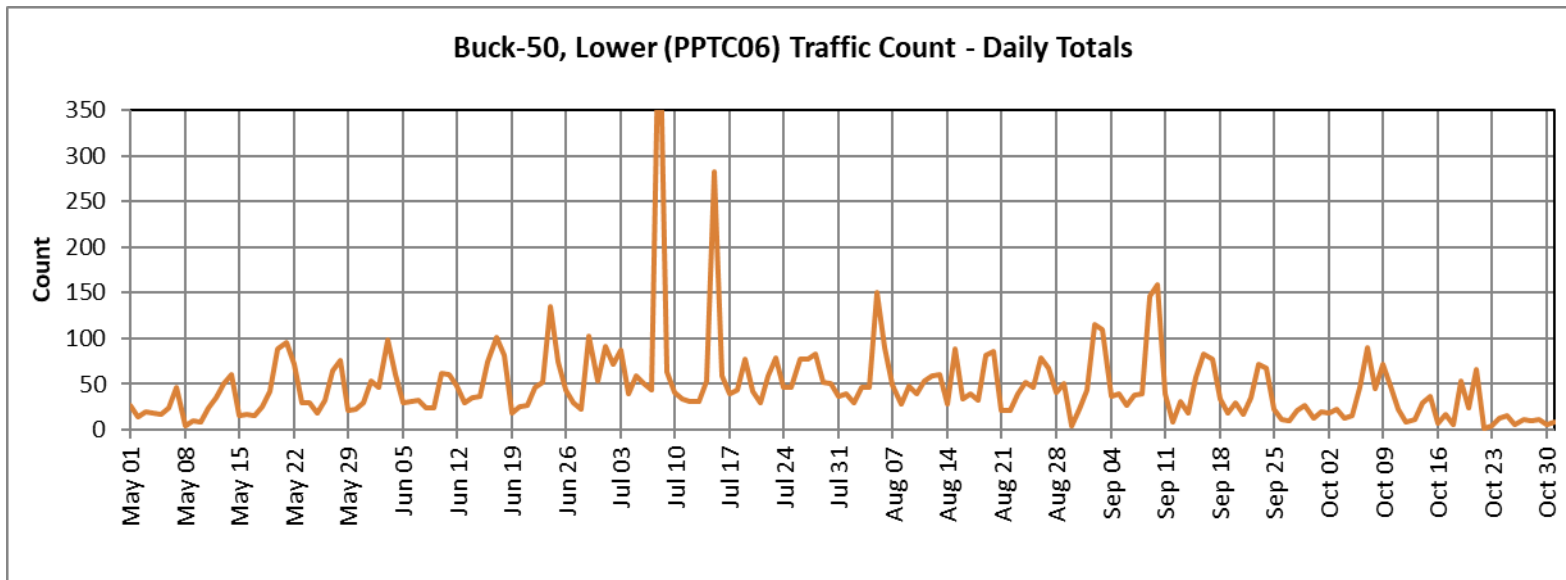


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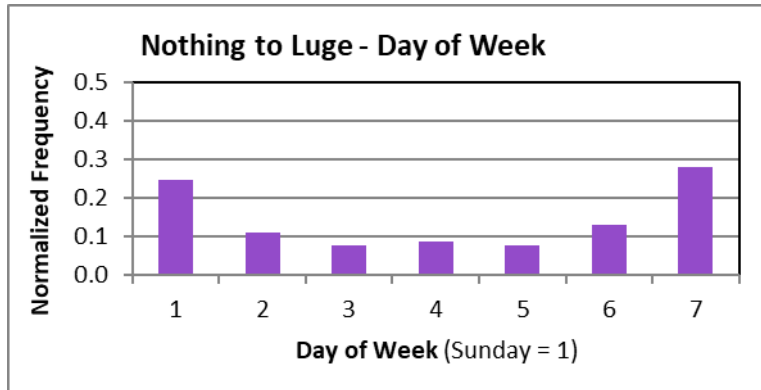


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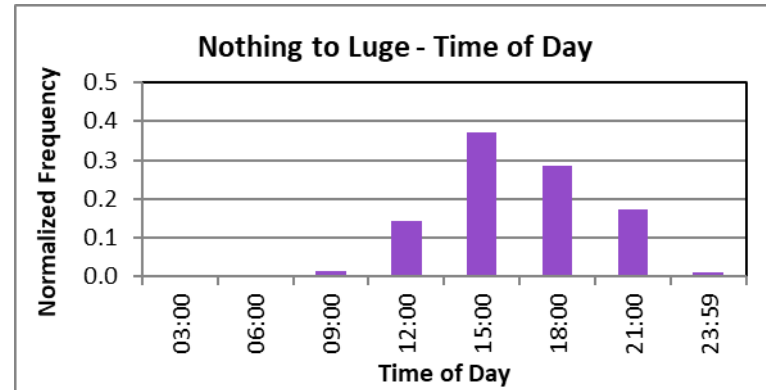


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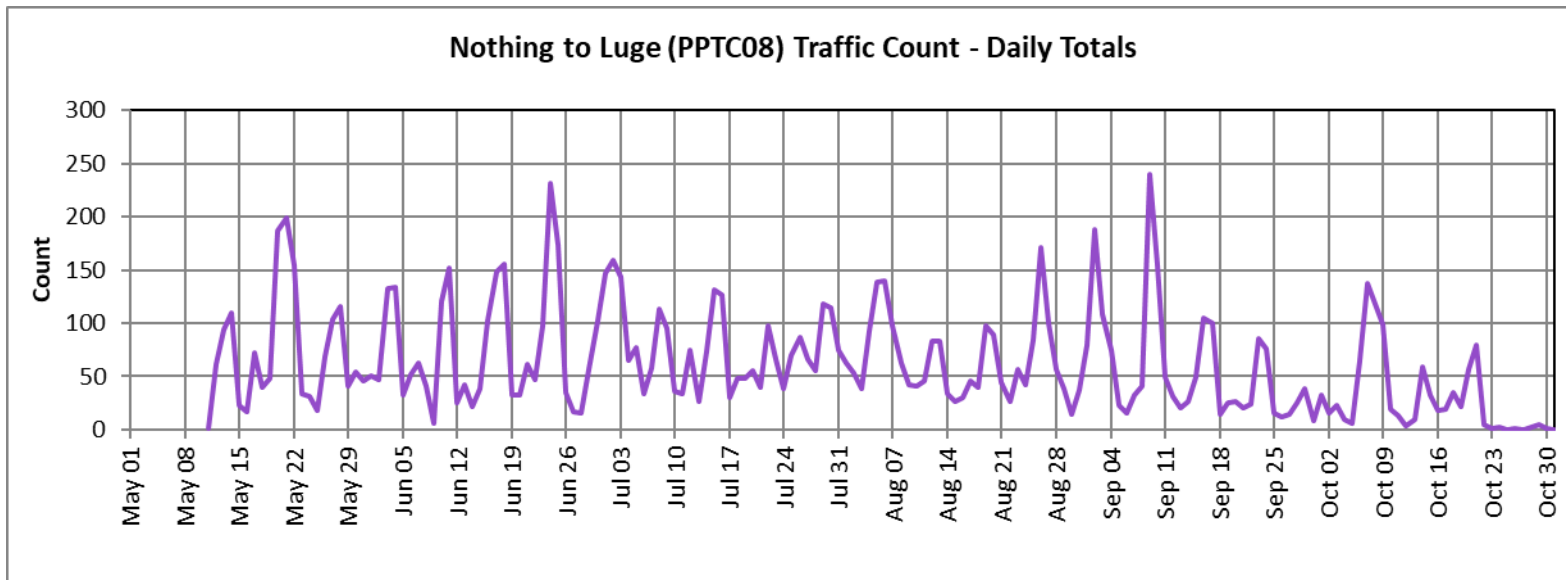


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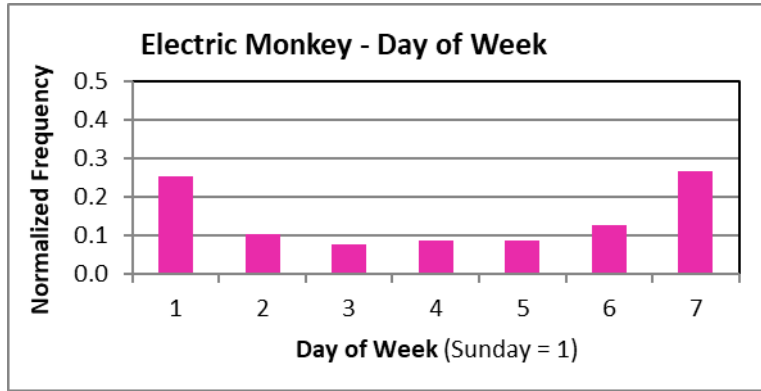


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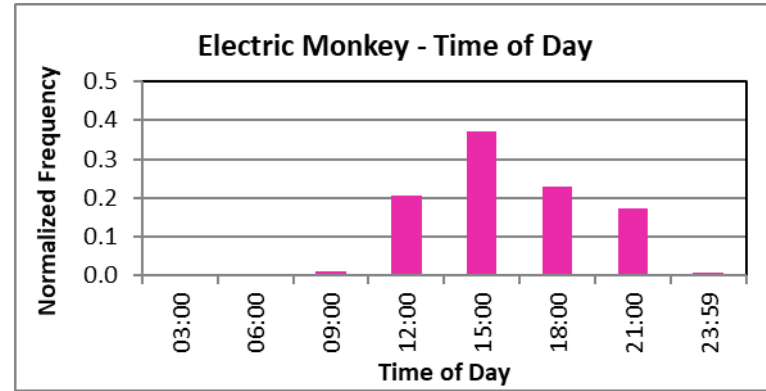


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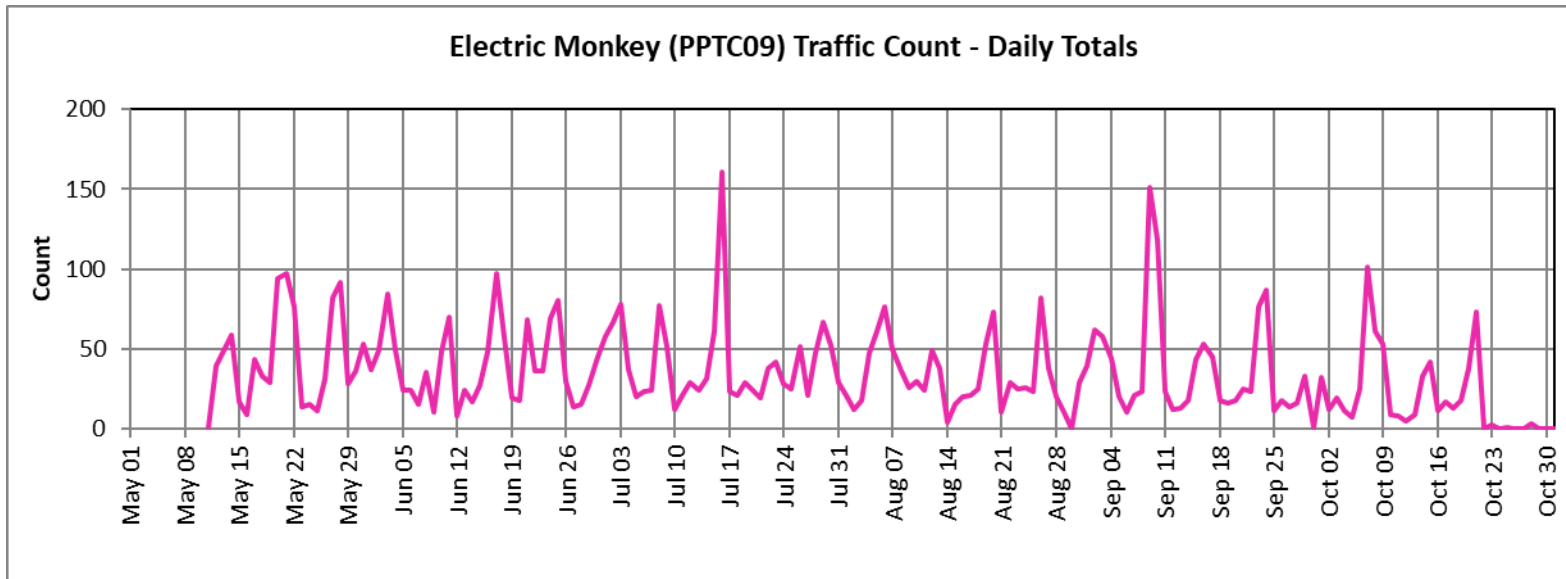


Figure 27