DOC Activity Counter Network: Visitor Asset Utilisation Report

Department of Conservation
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Technical Report

For equipment number 100081730
at Catchpool Loop Track
December 12, 2023

This uncalibrated counter data set ranges between 17/12/2008 and 02/02/2022 with a total count of 47170 in 115078 hourly observations. This document is set up to view the number of counts at an hourly scale, then to view the patterns there are over time (year, month, and day). At the daily level we fit a model that shows the relationship of the counts with time, month, and the Christmas holidays which seem to be the peak time at many sites. These reports are automated, so this trend needs to be evaluated by how well the model in red on Figure 1b matches with the the data.

We estimate that there was an increase in the number of visitors over time. The busiest 10 days are shown in Table 1 and the longest 10 occasions without any visitors are shown in Table 2. This should give a rough idea of the strength and validity of the data.
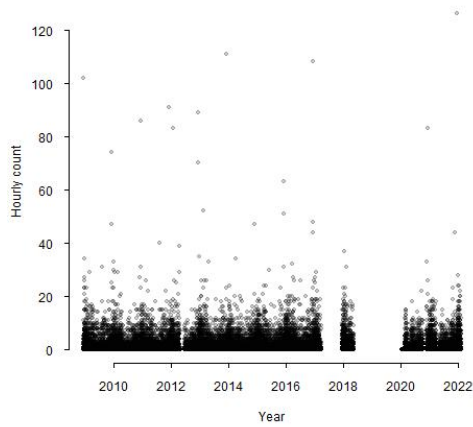
Date	Count
2009-01-01	135
2010-01-01	129
2016-12-06	129
2021-12-13	129
2013-12-11	114
2022-01-04	114
2016-12-05	111
2011-12-12	110
2008-12-18	106
2017-02-05	106

Table 1: Busiest 10 days in the dataset

Date	Days no visits
2020-01-15	36.04
2020-04-20	6.21
2020-03-25	5.96
2010-08-29	5.71
2011-08-14	5.00
2021-08-26	5.00
2014-07-14	4.83
2013-06-23	4.71
2014-05-11	4.71
2014-07-20	4.71

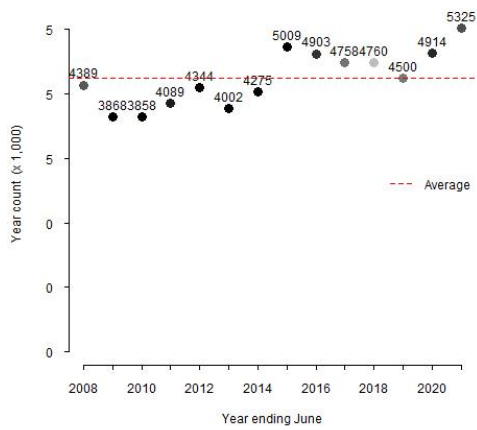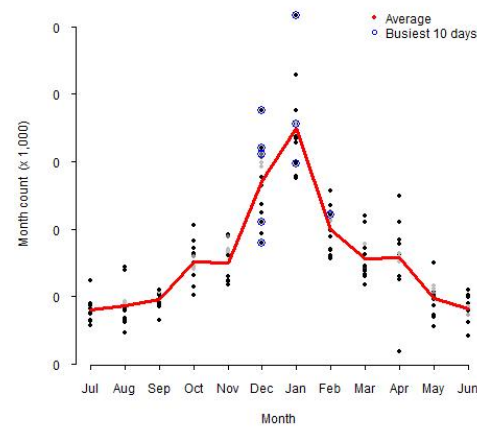Table 2: The 10 Longest times without any visitors for a period.
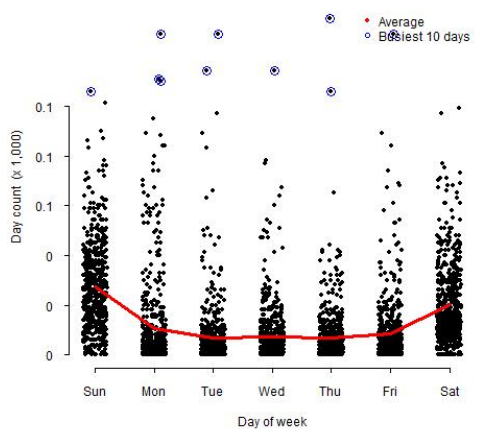
(a) Hourly raw data

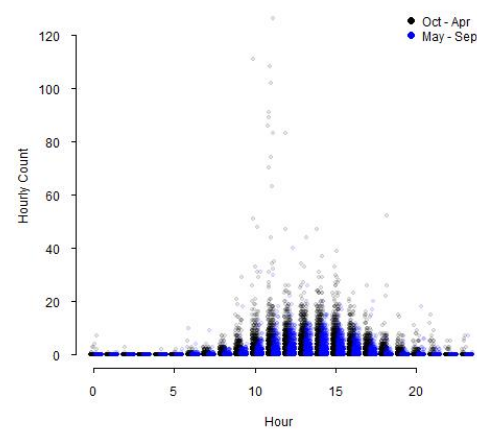(b) Trends at the daily level

(c) Annual pattern

(d) Seasonal patterns

(e) Day of week patterns

(f) Time of day patterns

Figure 1: Basic trends in visitor counter data shown by (a) the raw hourly data, (b) model of the trend in count by time, season, and, Christmas holiday, (c) sum of counts annually with incomplete years in grey, (d) monthly patterns, (e) weekday patterns, and (f) hourly patterns. If a point was incomplete we filled that month/year with what was predicted to occur and faded the point as a function of the amount of uncertainty.

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