

Supplementary material for

Does episodic tremor and slip influence seismicity in northern Cascadia?

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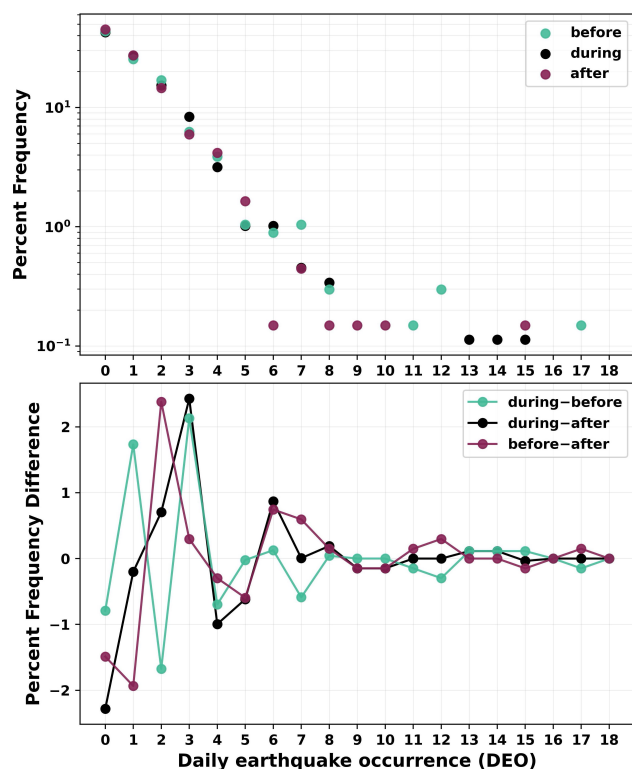


Figure S1 Same as Fig. 7 in the main text, but for before and after ETS time periods consisting of 21 days instead of 28 days. Distribution and comparison of daily earthquake occurrence (DEO) in three distinct time periods: before (green circles), during (black circles), and after (purple circles) ETS events. (top) Histogram of DEO in each group over all ETS events shown as a percentage of the total days in each group. Only non-zero DEO values are shown. The results of KS tests performed on each pair of datasets are given in Tab. S1. (bottom) Difference in percent frequency of DEO in the top panel.

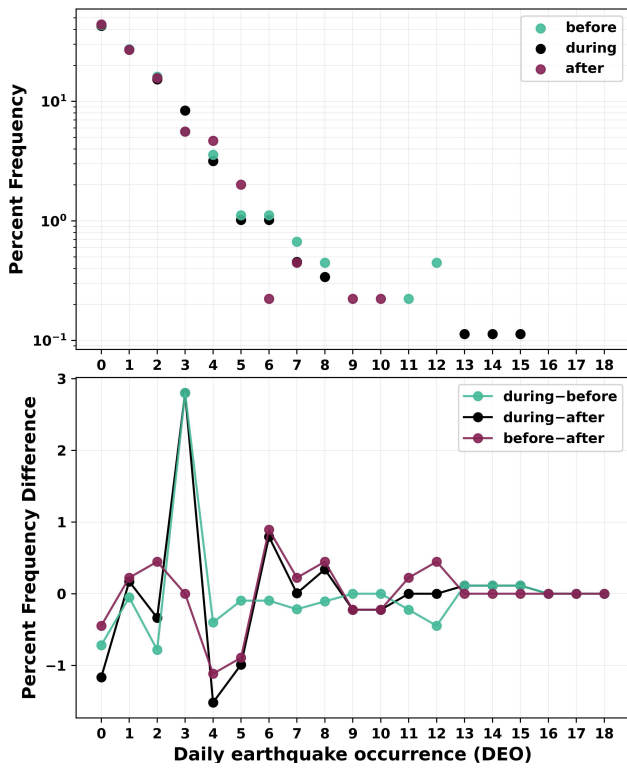


Figure S2 Same as Fig. 7 in the main text, but for before and after ETS time periods consisting of 14 days instead of 28 days. Distribution and comparison of daily earthquake occurrence (DEO) in three distinct time periods: before (green circles), during (black circles), and after (purple circles) ETS events. (top) Histogram of DEO in each group over all ETS events shown as a percentage of the total days in each group. Only non-zero DEO values are shown. The results of KS tests performed on each pair of datasets are given in Tab. S1. (bottom) Difference in percent frequency of DEO in the top panel.

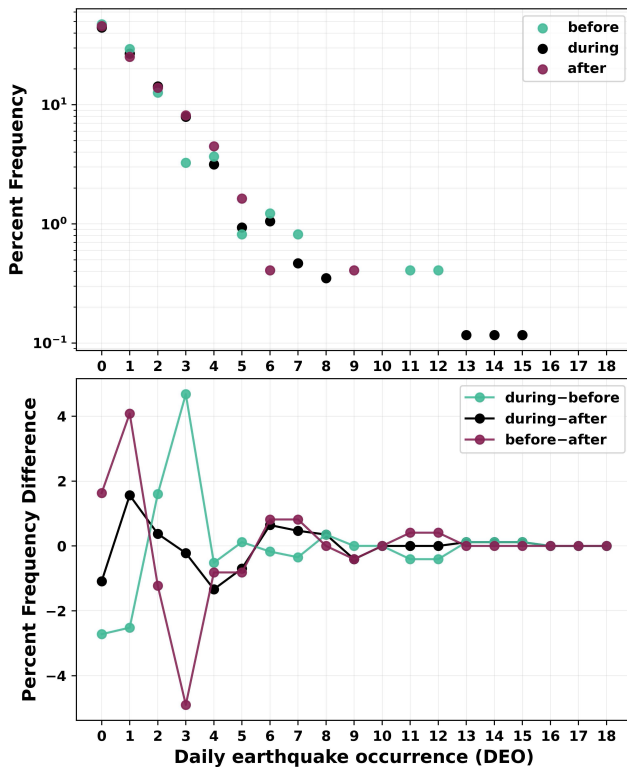


Figure S3 Same as Fig. 7 in the main text, but for before and after ETS time periods consisting of seven days instead of 28 days. Distribution and comparison of daily earthquake occurrence (DEO) in three distinct time periods: before (green circles), during (black circles), and after (purple circles) ETS events. (top) Histogram of DEO in each group over all ETS events shown as a percentage of the total days in each group. Only non-zero DEO values are shown. The results of KS tests performed on each pair of datasets are given in Tab. S1. (bottom) Difference in percent frequency of DEO in the top panel.

Periods	21 Days	14 Days	7 Days
During/Before	1.0	1.0	0.65
During/After	0.97	1.0	1.0
Before/After	0.83	1.0	0.82

Table S1 Kolmogorov-Smirnov (KS) test p -value results for test cases involving DEO proximal to ETS occurring within periods before ETS, during ETS, and after ETS. The number of days in ETS periods remains the same throughout, but the number of days considered in before and after ETS periods includes 21 days, 14 days, and seven days. Low p -values indicate a greater likelihood that the two datasets are distinct.

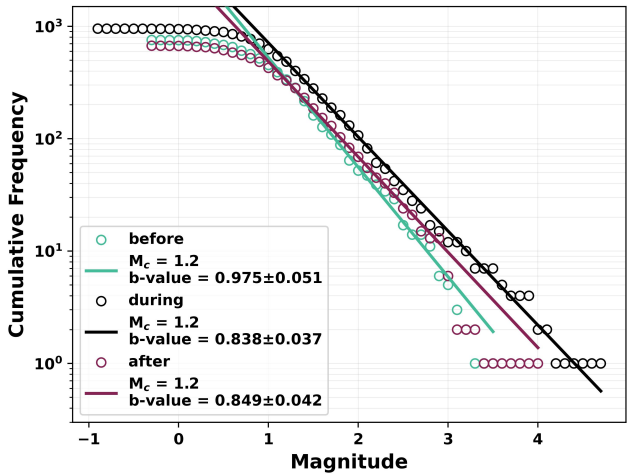


Figure S4 Same as Fig. 8 in the main text, but for before and after ETS time periods consisting of 21 days instead of 28 days. Gutenberg-Richter frequency-magnitude relationship (solid lines) fit to the cumulative frequency-magnitude distribution of earthquakes in three distinct time periods: before (green open circles), during (black open circles), and after (purple open circles) ETS events. The results of KS tests performed on each pair of datasets are given in Tab. S2.

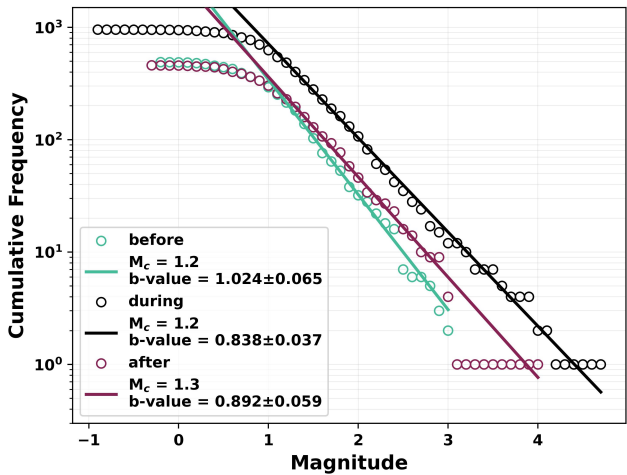


Figure S5 Same as Fig. 8 in the main text, but for before and after ETS time periods consisting of 14 days instead of 28 days. Gutenberg-Richter frequency-magnitude relationship (solid lines) fit to the cumulative frequency-magnitude distribution of earthquakes in three distinct time periods: before (green open circles), during (black open circles), and after (purple open circles) ETS events. The results of KS tests performed on each pair of datasets are given in Tab. S2.

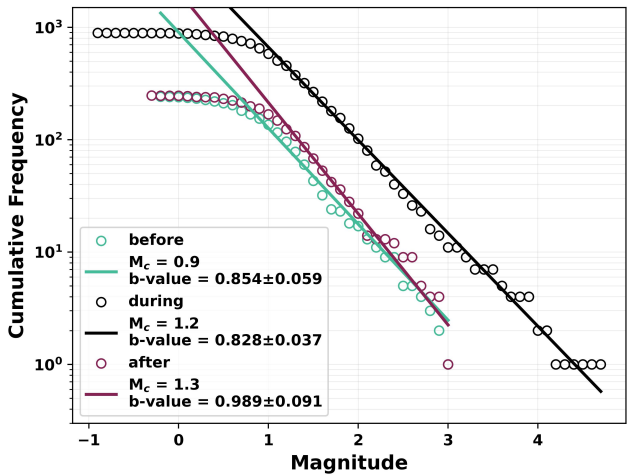


Figure S6 Same as Fig. 8 in the main text, but for before and after ETS time periods consisting of seven days instead of 28 days. Gutenberg-Richter frequency-magnitude relationship (solid lines) fit to the cumulative frequency-magnitude distribution of earthquakes in three distinct time periods: before (green open circles), during (black open circles), and after (purple open circles) ETS events. The results of KS tests performed on each pair of datasets are given in Tab. S2.

Periods	21 Days	14 Days	7 Days
During/Before	0.005	0.014	0.009
During/After	0.72	0.99	0.86
Before/After	0.07	0.08	0.01

Table S2 Kolmogorov-Smirnov (KS) test p -value results for test cases involving earthquake magnitudes proximal to ETS occurring within periods before ETS, during ETS, and after ETS. The number of days in ETS periods remains the same throughout, but the number of days considered in before and after ETS periods includes 21 days, 14 days, and seven days. Low p -values indicate a greater likelihood that the two datasets are distinct.