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Spatiotemporal changes of seismicity rate during earthquakes

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Supplementary Figure Caption

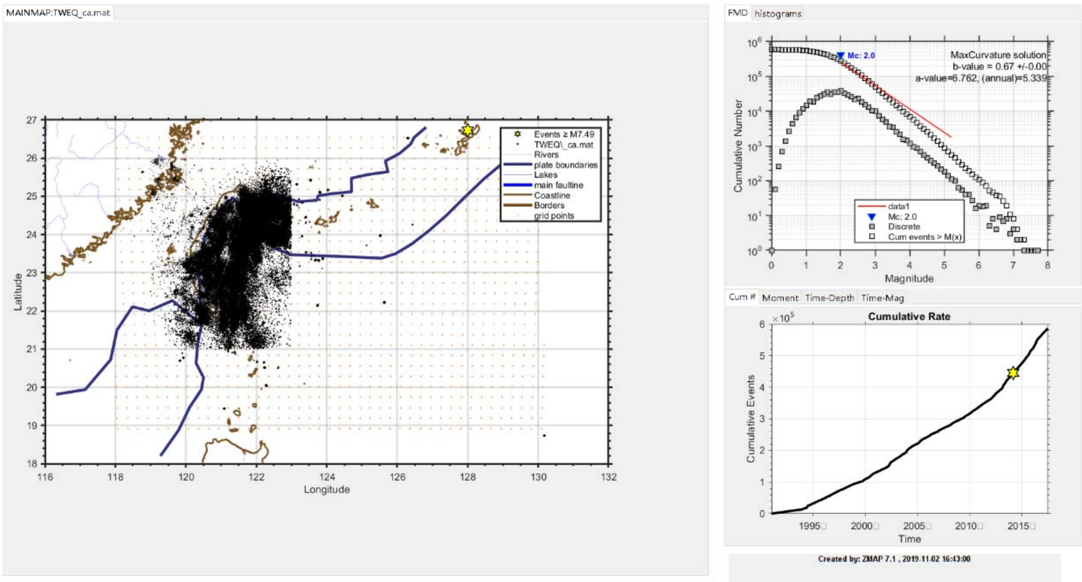

Fig. S1. The location of earthquakes and the cumulative earthquake events as a function of magnitude and time using the earthquake catalog in Taiwan during 1991–2017.5. The figure is reported by using the software of ZMAP 7.1. The location of earthquake is shown in the left panel. The cumulative earthquake number as a function of magnitude are shown in the top-right panel. The minimum magnitude of completeness Mc is 2.0. The cumulative earthquake events as a function of time are shown in the bottom-right panel.

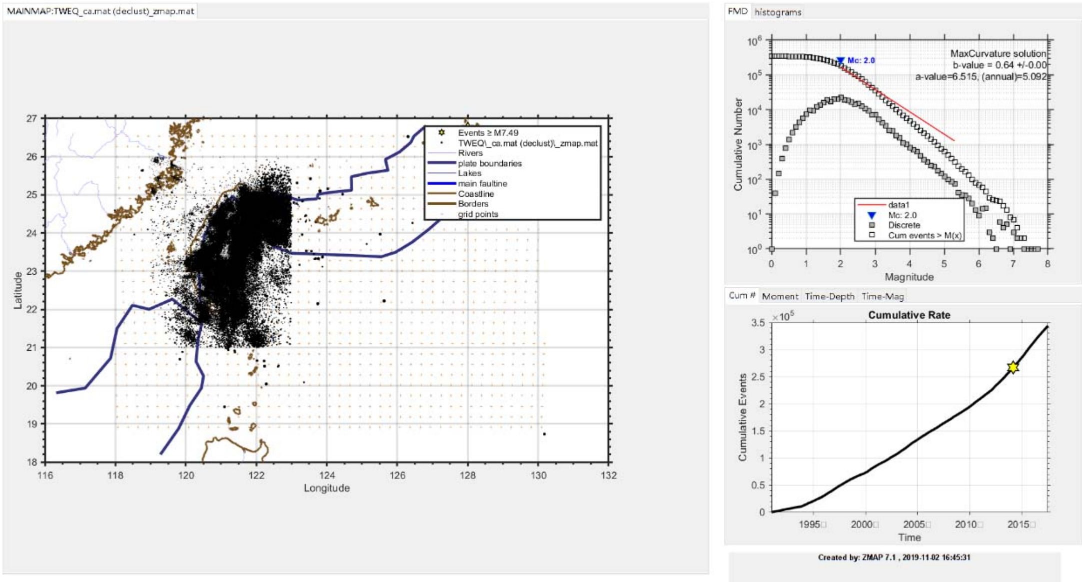

Fig. S2. The location of earthquakes and the cumulative earthquake events as a function of magnitude and time using the declustered earthquake catalog in Taiwan during 1991–2017.5. The figure is reported by using the software of ZMAP 7.1. The location of earthquake is shown in the left panel. The cumulative earthquake number as a function of magnitude are shown in the top-right panel. The minimum magnitude of completeness Mc is 2.0. The cumulative earthquake events as a function of time are shown in the bottom-right panel.

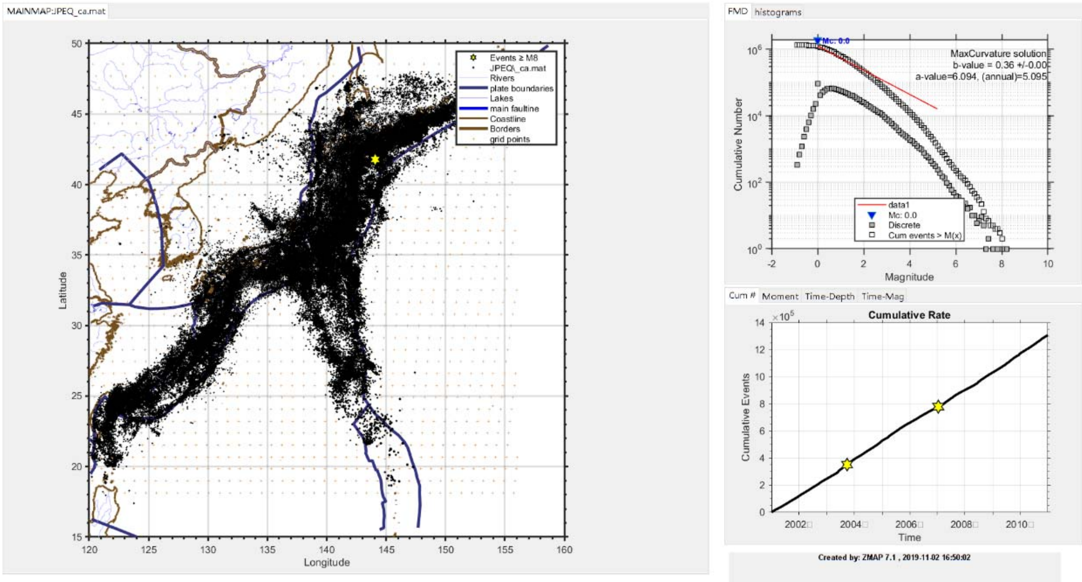

Fig. S3. The location of earthquakes and the cumulative earthquake events as a function of magnitude and time using the earthquake catalog in Japan during 2001–2010. The figure is reported by using the software of ZMAP 7.1. The location of earthquake is shown in the left panel. The cumulative earthquake number as a function of magnitude are shown in the top-right panel. The minimum magnitude of completeness Mc is 0.0. The cumulative earthquake events as a function of time are shown in the bottom-right panel.

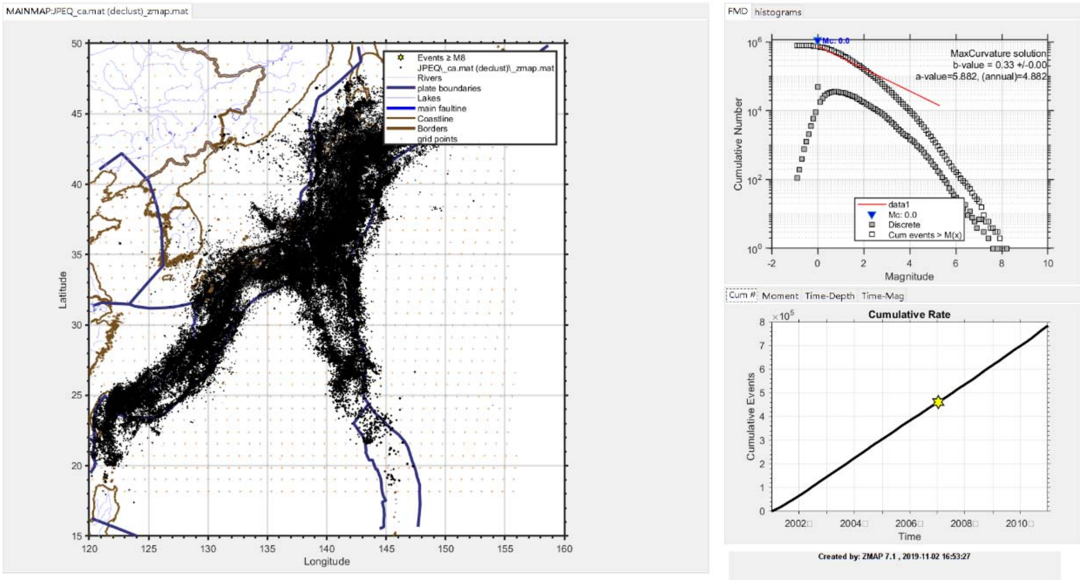

Fig. S4. The location of earthquakes and the cumulative earthquake events as a function of magnitude and time using the declustered earthquake catalog in Japan during 2001–2010. The figure is reported by using the software of ZMAP 7.1. The location of earthquake is shown in the left panel. The cumulative earthquake number as a function of magnitude are shown in the top-right panel. The minimum magnitude of completeness Mc is 0.0. The cumulative earthquake events as a function of time are shown in the bottom-right panel.

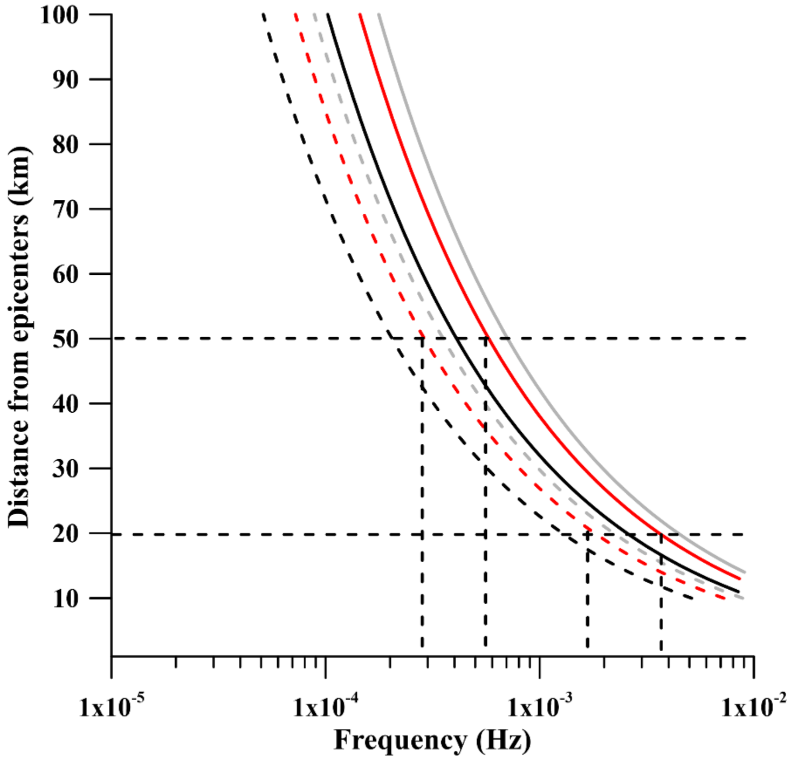

Fig. S5. Relationships between the width and resonance frequency of a square sheet. We assume that the resonant area is a square sheet with all sides simply supported. According to Leissa (1969), the resonance frequency of such a square sheet can be estimated using the formula $f=\frac{1}{2\pi}\sqrt{\frac{Eh^2}{12(1-\upsilon^2)\rho}}[(\frac{m\pi}{a})^2+(\frac{n\pi}{b})^2]$, where E is Young's modulus; h is the thickness of the sheet; ρ is the mass density; υ is the Poisson's ration; a and b are the lengths of the plate; and m and n are integers. In this study, a equals b as the sheet is square and these values are assumed to be two times the distance from the epicenter. The solid and dashed curves indicate the relationships between the width and resonance frequencies, as computed at thicknesses of 1000 m and 500 m, respectively. The black, red and grey colors are computed by using the Young's modulus of 50 GPa, 100 GPa and 150 GPa respectively. Notably, m and n are taken to be 1 to estimate the relationship based on a fundamental mode. Average density of the crust is 2700 kg/m^3. Poisson's ratio is 0.3.