

Supplementary Figures

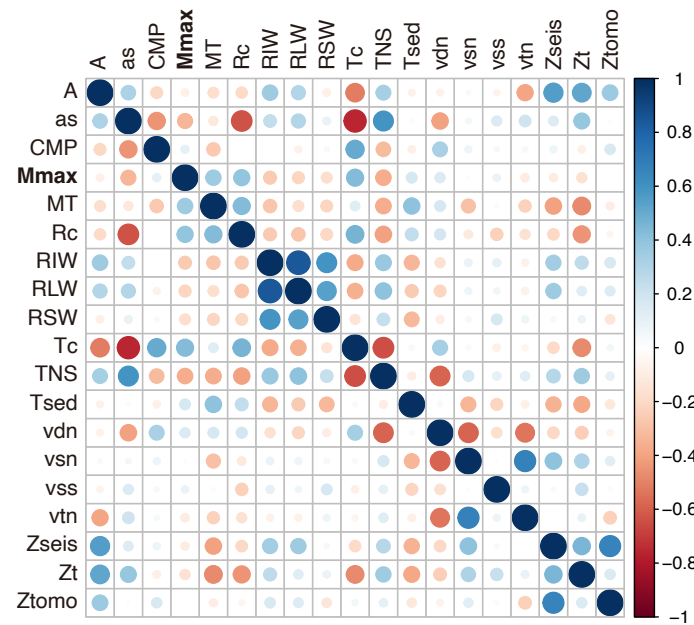


Figure S1. Correlation coefficient matrix for the subduction-zone parameters used in this study. The correlation coefficients are in the -1 to +1 range; +1 indicates the strongest correlation, -1 indicates the strongest inverse correlation, and 0 indicates no correlation. The symbols, which represent the subduction-zone parameters, are listed in Table 1.

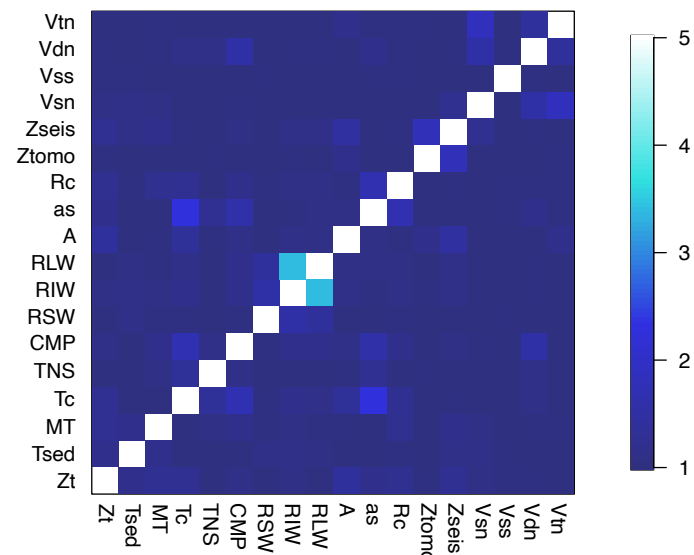


Figure S2. Variance inflation factors (VIFs) of subduction-zone parameters used in this study. Explanation of the symbols are listed in Table 1.

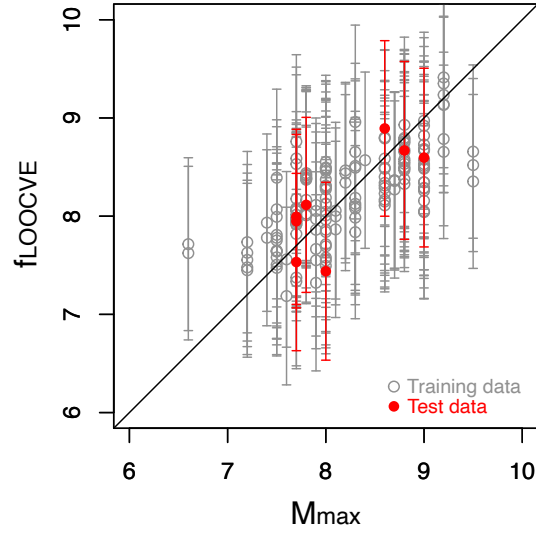


Figure S3. Unstandardized observed maximum earthquake magnitude, M_{max} (horizontal axis), versus the predicted value, $f_{\text{LOOCVE}} (= f_{\text{AIC}})$ (vertical axis), at the 169 analyzed locations. The open gray circles and closed red circles indicate the training and test datasets, respectively. The error bars indicate the 95% prediction intervals. $f_{\text{LOOCVE}} = M_{\text{max}}$ along the black line.

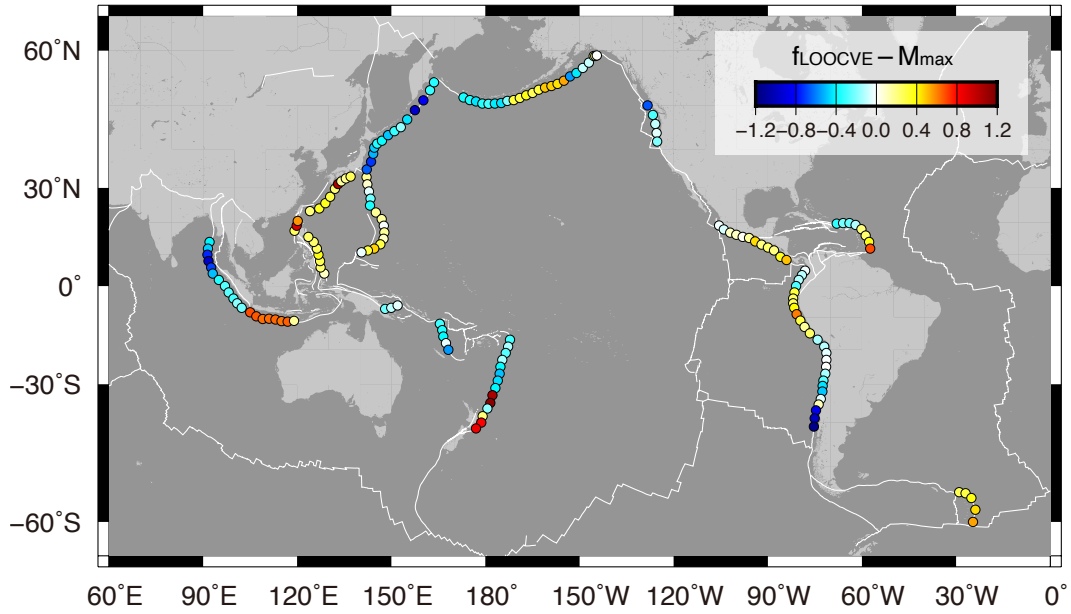


Figure S4. Map of the error between the predicted and observed unstandardized maximum earthquake magnitudes ($f_{\text{LOOCVE}} - M_{\text{max}}$) at the 169 analyzed locations. Warm colors indicate $f_{\text{LOOCVE}} > M_{\text{max}}$, and cool colors indicate $f_{\text{LOOCVE}} < M_{\text{max}}$. The white lines indicate plate boundaries.

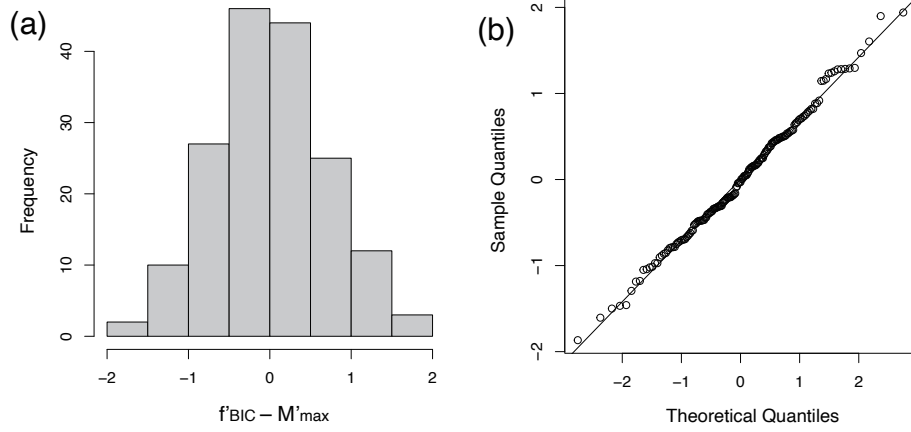


Figure S5. (a) Histogram of the error between the predicted and observed standardized maximum earthquake magnitudes ($f'_{\text{BIC}} - M'_{\text{max}}$). (b) Q-Q plot of $f'_{\text{BIC}} - M'_{\text{max}}$. The horizontal and vertical axes indicate the theoretical and observational (data) quantities, respectively. The black line indicates a fully Gaussian distribution.

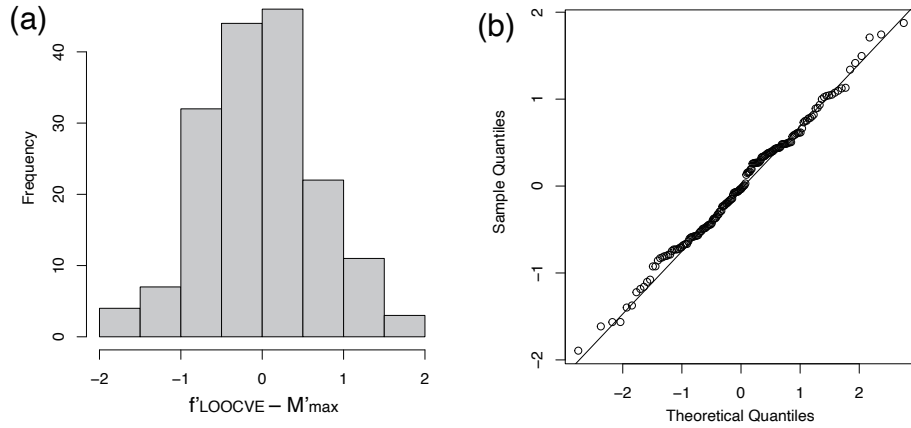


Figure S6. (a) Histogram of the error between the predicted and observed standardized maximum earthquake magnitudes ($f'_{\text{LOOCVE}} - M'_{\text{max}}$). (b) Q-Q plot of $f'_{\text{LOOCVE}} - M'_{\text{max}}$. The horizontal and vertical axes indicate the theoretical and observational (data) quantities, respectively. The black line indicates a fully Gaussian distribution.