

Seismic activity of medium-scale characteristic earthquakes after the 2011 off the Pacific coast of Tohoku Earthquake

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Medium-scale characteristic earthquakes around Japan have been detected on the basis of regularity, geographical proximity, magnitude, correlation coefficient and coherence. It has become clear that among 31 detected groups in eastern Japan, 9 groups had the newest earthquake after the Great East Japan Earthquake on March 11, 2011, on the basis of the digital wave data of 87-type strong motion seismometer and 95-type seismic intensity meter of JMA. Correlation coefficients and coherences were used. The 9 groups are the East off Shimokita Peninsula M5.0, Group A and B of off Taneichi M5.7, off Kamaishi M5.1, off the Ojika Peninsula M5.1, off Iwaki M5.6, Hitachi M4.8, off Ibaraki M7.7, Katori M5.4. These suggests that characteristic earthquakes triggered by the great earthquake need two things, short distance from the hypocenter area of the great earthquake and enough time from the last event in order to accumulate strain to occur an earthquake.

Keywords: Characteristic earthquake, Recurrent earthquake, Correlation coefficient, Coherence, Off Taneichi, the Great East Japan earthquake