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## Seismic intensity of the two earthquakes (Dec.17-18,2009) off the east Izu Peninsula, based on a questionnaire survey

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A questionnaire survey was made to clarify the detailed distribution of seismic intensities of the two largest earthquakes (M5.0 and M5.1 on December 17-18, 2009), which were associated with the earthquake swarm off the east coast of the Izu Peninsula, Japan. We distributed questionnaire sheets, which were based on the method by Ota et al. (1998), to 10 elementary schools in Ito City and requested them to be answered by all the households of their schoolchildren. In addition, we made the same surveys on the households lived in the middle parts of Ito City (Nagamiyo, Komuro-icchome, Komuro-nichome, and Joboshi areas), where severe damages were reported. 2557 available answers were collected and converted to JMA seismic intensity at each locality. These intensities were mapped and compared with topographic and geologic maps. While the mean intensity in Ohara shows 4.6 (5 lower in JMA scale), which is the same as that measured by a seismic intensity meter, the intensities at many points in Nagamiyo and Komuro-icchome show 6 lower and the mean value is 5.4 (5 upper). The mean intensity (5 lower) in Komuro-nichome is the lowest in the above four sections. This was probably caused by the hard basement, that is composed of thick lava flows from Komuroyama Volcano.