Spatial distribution and temporal change of seismicity in the Philippine Sea slab subducting beneath southwestern Japan

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We reviewed spatial distribution and temporal change of seismicity in the Philippine Sea slab subducted beneath southwestern Japan. General features of the configuration of the slab are almost the same as those models ever proposed by many researchers. We newly found, however, discontinuity and lineament in the hypocentral distribution, change in subduction direction of the slab, and difference of the depths of earthquakes in lateral direction at various regions.For example, we found that the southern boundary of the estimated area of the slow event that occurred in 1997 beneath the Bungo Channel corresponds to the region where depth of the slab changes largely in the lateral direction. We also found that seismicity in the slab decreased noticeably in 1997 around the estimated slip area.