

Re-estimation of the evolution history of the West Philippine Basin

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The evolution and spreading history of the northernmost area of the West Philippine Basin (east of the Luzon Okinawa Fracture Zone, north of Benham Rise and Urdaneta Plateau) in the Philippine Sea Plate was re-tested through the recent marine geophysical (direct magnetic total force observation and that estimated by the observation by the 3-component geomagnetic measurement) data by JAMSTEC fleets cruises and the hydrographic survey expeditions by the Japan Coast Guard. The result suggests that the area was constructed by the seafloor spreading during 23-30Ma just after around 33Ma, the cessation of the spreading at the Central Basin Spreading Centre (CBSC) and the Huatung Basin (the northwesternmost area of the WPB, between Gagua Ridge and Taiwan Island). The result is consistent with the dating from the collected rock samples by the JAMSTEC's ROV cruises in this area.

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