



## **Analysis of Marine Magnetic Field Anomaly Profiles of the West Philippine Basin to Infer Its Style of Opening**

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The West Philippine Basin (WPB), located on the Philippine Sea Plate, is considered to have undergone a rapid opening during the Eocene. However, the detailed opening of the WPB and its relationship with surrounding basins were rather uncertain in the existing plate reconstruction models because of their sparse coverage. This study re-examines the opening using the sea surface marine magnetic anomaly data that were added to the database over the last several decades. Detailed rotation poles were computed different stages using Gplates program. According to our analysis, WPB started to open in NE-SW direction as early as the early Eocene (> 53 Ma) but changed gradually to N-S direction around 45 Ma. It appears that the spreading was not uniform, evidenced by jumps in the spreading axis and along-axis discontinuities with an average speed greater than previous reported. The spreading appears to have slowed down around 37 Ma and finally ceasing at around 25 Ma. The spreading was not symmetric between north and south, and this apparent asymmetry becomes notable towards the end of the opening.