Paleomagnetism of the Ishizuchi Group of Shikoku: A constraint on the completion of clockwise rotation of Southwest Japan

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A paleomagnetic study was carried out for the middle Miocene volcanic rocks of the Ishizuchi Group (14.5 Ma to 16 Ma) in northwestern Shikoku Island, with aim to date the completion of clockwise rotation of Southwest Japan. We collected paleomagnetic samples from a total of 16 different horizons, including eight sites of the Takano Formation of the lower Ishizuchi Group and the other eight sites of the overlying Kuromoritoge Formation. One geomagnetic polarity change is recognized at the lower part of the Takano Formation while no systematic change with time is observed. The overall mean direction (D=3.4, I=36.6, a95=6.0) is indistinguishable within error limit from the Earth's dipole field, suggesting that the clockwise rotation of Southwest Japan has completed by 15 Ma