

## Saptio-temporal extent of a Cretaceous forearc basin and re-shaping of an arc-trench system: a case for the Izumi Group in Japan

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The Upper Cretaceous Izumi Group represents a typical sedimentary package accumulated in a forearc basin; the extremely thick turbidite-dominated terrigenous clastic rocks occur in a narrow belt less than 15 km wide but continues for more than 300 km along a major fault called Median Tectonic Line (MTL) in SW Japan between the Cretaceous arc granitoid (Ryoke) belt and coeval high-P/T blueschist (Sanbagawa) belt in SW Japan. Well-established ammonite and radiolarian biostratigraphy confirmed the Campanian-Maastrichtian age. The latest analysis of detrital zircon geochronology of sandstones of the Izumi Group clarified several new aspects, which require essential re-considerations on the basin setting/development, and post-depositional tectonic modifications during the early Cenozoic. 1) The youngest part of the Izumi Group ranges up to the Paleogene. 2) Its eastern extension is laterally traced to the Mikawa area, northern Kanto Mtns., and the Pacific coast of northern Kanto. In short, the Izumi sedimentary basin was originally much greater in size both in across-arc width and in along-arc length, and the basin existed much longer than previously believed. Owing to the severe across-arc contraction during the Paleogene-Neogene, more than a half of the primary sedimentary entity has been lost.

Keywords: arc-trench system, forearc basin, detrital zircon, Median Tectonic Line, Paleogene, Cretaceous