AOGS 2006


# Synchronous Sediment-Accretion and Erosion of Shallow Marine Sediments in a Jurassic Forearc Region, Southwest Japan

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Two kinds of Jurassic systems, accretionary complexes and shallow marine sediments, are juxtaposed in Southwest Japan. The accretionary complexes comprise six or seven stratigraphic units within the Tamba-Mino and Chichibu Terranes, and formed over a long period during the Jurassic via sediment-accretion processes within a trench. The complexes are divided into three groups of contrasting age that formed intensively over relatively short periods of time during the Aalenian, Callovian to Oxfordian, and Tithonian. The voluminous supply of sediment from a forearc region into a trench is one of the most important factors in forming accretionary complexes. Such sediment supply might well have occurred during the Aalenian, Callovian to Oxfordian, and Tithonian. The shallow marine sediments mainly comprise the Toyora-Toyonishi and the Kuruma-Tedori Groups, and are divided into three successions on the basis of transgression-regression cycles; different cycles are separated by remarkable unconformities. For example, the Toyora and overlying Toyonishi Groups comprise a Sinemurian-Toarcian succession in the lower to middle Toyara, a Bajocian-Bathonian succession in the upper Toyora, and a Tithonian-Berriasian succession in the Toyonishi Group. Judging from the ages of these successions, the Aalenian and Callovian-Oxfordian are considered to be periods of regression and formation of erosional unconformities. Transgression-regression cycles are generally thought to result from interaction between eustatic changes in sea level and periods of upheaval and subsidence. On the basis of Jurassic sea level changes that are characterized by cycles of slow sea level rise and subsequent dramatic fall, the periods of rapid sea level fall in the Aalenian and Callovian are considered to be synchronous with the formation of the above unconformities. As described above, processes of voluminous sediment-accretion within a trench and regression-related erosion within shallow marine areas are closely linked, and in the current case occurred synchronously.