

ECOLOGIC COLLAPSE OF BENTHIC COMMUNITIES FROM RESTRICTED PLATFORM TO RAMP DURING THE PERMIAN-TRIASSIC MASS EXTINCTION: CASE STUDIES OF THE MEISHAN AND HUANGZHISHAN SECTIONS, SOUTH CHINA

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Both the Huangzhishan and Meishan sections are geographically closely located, about 40 km apart in north-western Zhejiang Province, South China, but were situated at a restricted platform and ramp settings, respectively, during the P/Tr transition. The P/Tr boundary beds exposed at these two sections can be correlated bed by bed in terms of refined conodont zones, benthic faunal assemblages and geochemical signals. However, the so-called Survival Fauna Beds are rather thick, about 3.5 m thick at Huangzhishan, in sharp contrast to their thin counterpart, about 24 cm, at Meishan, and thus provide a window into more details of benthic responses to the P/Tr crisis. Benthic communities in both niches underwent a significant decrease in the high level taxonomic groups and a distinct reduction in body sizes during the P/Tr extinction. However, the surviving platform communities are much more abundant and diverse than the ramp communities. The former are dominated by brachiopods and bivalves, and the latter by foraminiferans and brachiopods. Of these, most of the surviving platform brachiopods escaped the P/Tr disaster and continued to populate the same niches; whereas the surviving brachiopods on the ramp migrated from other habitats after the event. These survivors, however, became extinct about 1-2 million years after the end-Permian crisis, and the communities were replaced by the low-diversity, *Claraia-Ophiceras* communities in the earliest Triassic. In addition, the disaster taxon *Lingula* proliferated in the relatively shallow platform rather than the ramp habitats.