

The marine fauna in Serpukhovian and Bashkirian strata (Namurian and basal Westphalian) of northern England shows changes in composition and diversity, both stratigraphically and in geographical distribution across the region. The deposits of distinct marine incursions contain characteristic assemblages of fauna, although few forms, if any, are diagnostic of individual incursions. The results of the study suggest that the depositional area formed an open channel during the marine incursions in which the benthic fauna (that comprises the majority of the recorded forms) is, in general, more prolific in the east. The faunas recorded in both block and basin sedimentary rocks are similar, suggesting that the water depth during deposition was also similar. The difference between block and basin lies in the amount of sediment deposited and the subsidence rate. The Subcrenatum Marine Band shows the most varied faunas in the west.