

THIS IS A REPORT WRITTEN BY ANNETTE C. BEE (DEC, 1970) ON PART OF THE COLLECTION OF UNIONIDS COLLECTED NW OF CLINTON. (SEE NOTES JULY 23, 1966.

ABSTRACT: A study was made of the unionid mussel shells found on the surface of the stream bed of the Wakarusa River, northwest of Clinton, Kansas. Deduction of how closely the assemblage of specimens found relates to the actual live population at this location is attempted with little result.

INTRODUCTION: One of the greatest problems in paleontology is the correlation of fossil assemblages with their initial living biomes. It is possible only to infer from the preserved material what the living assemblage was. The probability that an organism will be preserved as a fossil is slight, due to transportation of its remains out of its biome, physical and chemical breakdown of the remains, and chance for burial. These factors are most important in the stream environment where current is the major control of position of organisms in the stream channel. This study encompasses a population of both live and dead unionids found on the surface of a stream bed, before the burial process has preserved a few individual remains as fossils.

Unionids are a family of the class Pelecypoda of the Mollusca phylum. They are mussels found in both marine and fresh water (Kansas). They have two calcareous shells (valves) which are symmetrical to each other. Unionids are totally or partially buried in mud throughout their life. Predation by muskrats is heaviest on adult mussels and by fishes on juveniles.

MATERIALS AND METHODS: The material studied was collected on July 23, 1966 from the Wakarusa River northwest of Clinton, NE corner of section 15, T. 13 S., R. 18 E., Douglas County, Kansas. This 460 foot stretch of the river lies between two permanent, deep pools and is itself shallow and rippled, with alternately rapidly flowing water in constricted areas and slower moving