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Robert F. Diffendal

University of Nebraska - Lincoln, rdiffendal1@unl.edu

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MICROFOSSILS FROM THE BIG SPRINGS LIMESTONE (PENNSYLVANIAN) IN NEBRASKA

R.F. Diffendal, Jr., Science Division, Doane College, Crete, Nebraska,
68333

Sand-sized residues from partial acetic acid digestion of three samples of the Big Springs Limestone Member of the Lecompton Limestone (Pennsylvanian) from two localities in Cass County, Nebraska, have yielded sixteen genera of

microfossils from five major groups of organisms and numerous other whole and partial fossils from seven other groups not identified to the genus level. These fossils include: Protozoa (fusulinids*); Porifera (one spicule type); Bryozoa (two undetermined genera); Brachiopoda (fragments); Gastropoda (two undetermined forms); Ostracoda (Bairdia*, Hollinella*, Moorites*, and one undetermined genus); Crinoidea (whole and partial ossicles*); Echinoidea (whole and partial spines and spine bases*); Holothuroidea (Achistrum*, Eocaudina*, ?Microantyx, Paleochiridota*, Priscopedatus, Protocaudina*); Annelida (?Eucinities); Conodontophorida (Cavusgnathus, Idiognathodus*, Ozarkodina, Streptognathodus*, and several undifferentiated hindeodellid elements); and Pisces (Idiacanthus*, Moreyella*). Those forms listed above that occur at both localities are marked with an *. All of the forms not so designated have only been found at the easternmost collecting site.

Coupled with the increase in faunal variety from west to east there is also a marked difference in the nature of the residues from the two sites. The residue from the western locality contains more aggregates of silt-sized grains and fewer fossil fragments than do the residues from the eastern locality.