

FORAMINIFERAL FAUNULES FROM THE MUDLUMPS

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ABSTRACT

Clays and silts from the mudlumps off the mouths of the passes of the Mississippi River are characterized by two foraminiferal assemblages: (1) a *Nonionella-Strebilus-Bulimina* assemblage and (2) a *Liebusella-Textulariella-Vaginulinopsis* assemblage. An analysis of the foraminifera incorporated with the Recent sediments was undertaken to locate these assemblages and thus ascertain the environment of deposition and magnitude of vertical displacement of the mudlump clays and silts.

Samples from the littoral environment contributed only negative information since the foraminiferal species present in the near-shore brackish-water sediments and in the inland bays and lakes were not present in the mudlump clays and silts.

The neritic zone, sampled to a depth of 380 feet, contained species of *Nonionella*, *Strebilus*, and *Buliminella*, which characterized most of the mudlump faunules, but did not contain the species of the second assemblage present in a few of the mudlump samples. Based on an examination of deep-water samples taken off the coast of Texas and Florida, the *Liebusella-Textulariella-Vaginulinopsis* assemblage is living in water deeper than 380 feet and apparently beyond the area of active delta growth. The original area of deposition of the mud now constituting the clay in mudlumps bearing the *Liebusella-Textulariella-Vaginulinopsis* assemblage was concluded to be in water deeper than 450 feet, and the vertical displacement of the clay to have exceeded 400 feet.