

INCRUSTING AND BORING BRYOZOANS FROM THE DESSAU (CHALK) FORMATION, UPPER CRETACEOUS, LITTLE WALNUT CREEK, AUSTIN, TRAVIS COUNTY, TEXAS

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Abstract

Eight sections were measured along a 623 meter length of Little Walnut Creek. The first section was 78 meters north of the U.S. 290 bridge while the eighth was 623 meters north of the bridge.

The stream follows a normal, north-south trending fault. Small faults cut this primary fault and apparently account not only for minor variations in local dip, but also for the placement of at least one tributary.

Megainvertebrate exoskeletons were inhabited by boring and incrusting bryozoans as well as boring sponges. These fossils were found on both interior and exterior surfaces of *Exogyra laeviscula*, *E. tigrina* and on interior surfaces of *Inoceramus*. Low siltation rates extended exoskeleton availability after death of the hosts while the low energy environment prevented shell fracturing.

Nonboring bryozoans were primarily cheilostomes. One genus, *Pyripora*, has been described from the Cretaceous of Kansas as well as from European Cretaceous sites. Another species, an unidentified lunuliform, belongs to a group that forms unattached colonies on unstable substrates such as silts and limey muds. Boring bryozoans were primarily represented by one or more species of *Terebripora*.

The paleoenvironment, represented by the rocks in this section of the Dessau Chalk, was a low energy, shallow, limey mud platform. Other than lunuliform bryozoans, no unattached colonies have been found in processed sediments. The environment apparently restricted bryozoan species to those that could either incrust living and dead *Exogyra spp.*, dead *Inoceramus sp.* or to a few types that could form unattached colonies capable of surviving on the prevailing soft, shifting substrates.

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