

March 11, 1968

Dr. John E. Fitch  
Marine Resources Operations  
California State Fisheries Laboratory  
Terminal Island, California 90731

Dear Dr. Fitch:

In response to your letter of March 6, 1968, there are no outcrops of marine Miocene beds in Texas whatsoever. There is only one locality where brackish-water deposits of Miocene age come to the surface. That locality is near Burkeville, Newton County, extreme east Texas. The locality has been described by Stenzel, Turner, & Hesse, 1944, Am. Assoc. Petroleum Geologists Bull., v. 28, p. 977-1011. There is an oyster bed exposed there. However, I do not remember whether we found any fish otoliths.

Your best bet for Miocene fish otoliths is the Florida Miocene; compare Gardner, U.S. Geol. Survey, Prof. Paper 142. Look up the localities she lists.

I doubt that there are more than just a very few Cretaceous outcrops on the Gulf Coastal Plain that have fish otoliths, because in nearly all places the aragonite has been leached and only the calcite is left. The exceptions are Coon Creek in Tennessee and Owl Creek in Mississippi. Drop by the Mississippi Geological Survey in Jackson and find out about Owl Creek.

There are many Eocene localities throughout the Gulf Coastal Plain that have fish otoliths. One such place is Stone City, halfway between Bryan and Caldwell, on the Brazos River; see Univ. Texas Publication 5704.

A very good Oligocene locality is at the U.S. National Cemetery in Vicksburg, Miss. A place easy to find.

Wishing you good luck in collecting.

Sincerely yours,

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H. B. Stenzel  
Visiting Professor of Geology

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