

CARNEGIE INSTITUTION OF WASHINGTON

Geophysical Laboratory

2801 UPTON STREET, N.W., WASHINGTON, D. C. 20008

(202) WOODLEY 6-0334

July 9, 1964

Dr. H. B. Stenzel  
Shell Development Co.  
Exploration and Production Research Division  
Houston, Texas

Dear Dr. Stenzel:

I noticed your report in Science, 145, p. 155 (1964) on "Oysters: Composition of the Larval Shell." The aragonite-to-calcite transition is interesting and I wonder if it might be possible to follow up this study with an analysis of the organic matrix composition.

We have been analyzing the shell proteins in a variety of shells and find what appears to be a phylogenetic pattern between the more primitive forms and the more specialized. I would guess that the transition of larvae to adult might involve this same type of pattern difference.

We have built an extremely sensitive amino acid analyzer here capable of analyzing very small amounts of material (a few mg of shell material with a normal organic content of at least 0.01%). How many larva shells of Crassostrea virginica does it take to make up a few mg by weight?

We would be interested in analyzing the shell proteins if this is feasible. Do you have any samples left? We'd be interested in both larval and adult specimens. We'd be happy to send you any data we get from the specimens.

Sincerely,

*Ed Hare*

P. E. Hare