July 28, 1961

Dr. Paul S. Galtsoff
United States Department of the Interior
Fish and Wildlife Service
Bureau of Commercial Fisheries
Biological Laboratory
Woods Hole, Massachusetts

Dear Dr. Galtsoff:

Please find enclosed the two Kodachromes (Nos. 3 and 6) which you kindly lent to me some time ago. Fairly good black and white reproductions have been made from them. I hope to be able to use the reproductions, with proper credits, in my manuscript on the Ostreidae.

The work on the Ostreidae chapter for the Treatise on Invertebrate Paleontology is progressing as nicely as might be expected, but it is an enormous amount of work. There is so much literature, both paleontological and neontological, to digest and sift, and there are so many fossil and recent oyster species to study. Very often I wish I had not volunteered for this work.

You may be interested to know that certain parts of the shell of all oysters are made of aragonite, which I have determined by stain technique. Aragonite is also found in the ligament. As you see, I am not entirely relying on the literature, but am checking all data that I am able to test.

I am very much concerned about conflicting published information concerning the periostracum and the periostracal glands. Thurlow Nelson published a section through the edge of the mantle lobe (Nelson, 1938, figs. 20 and 21) showing glands situated in the trough between the pallial curtain and the middle (or tentacular) fold of the mantle lobe. He even showed a conchyolinic thread or sheet issuing from these glands. He claimed these glands had not been described before and were a new kind of gland. Awati & Rai (1931, fig. 7) show a similar section, but their's has glands in the trough between the outer and middle fold of the mantle lobe, and they flatly label these glands the periostracal glands. Assuming that the glands are the same in both cases, it is clear that one of the two publications has the section turned inside-out. I suspect Nelson's section was flipped over inadvertently and his discovery of new glands is really a rediscovery of the periostracal glands. In your work have you run across these glands, and do you know the answer to this question? If my eyes were better, I would make a section from live material myself. But my eyesight is half gone since I had an adenoma on the pituary gland, which expanded upward against the optic nerves; it has been removed surgically.

Thank you very much for your help.

Sincerely yours,

H. B. Stenzel

HBS:mh
Enclosure

Shell Development Company
Exploration & Production Research Division

Nelson, T. C., 1938, The feeding mechanism of the oyster: Jour. Morphology, v. 63, no. 1, pp. 1-61, 21 text figs.

Awati, P. R., & Rai, H. S., 1931, Ostrea cucullata (The Bombay oyster): Indian Zool. Mem. on Indian Animal Types, no. 3, 107 pp., 51 figs. Lucknow, Methodist Publishing House.