THE HISTORY OF THE MOSASAUR SKIN SPECIMEN FROM
LOCALITY NUMBER SMU76532, (MY FIELD LOCALITY # SC – KB – M
– 3), IN THE MANUSCRIPT “SKIN PIGMENTATION”, PUBLISHED IN
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Skin pigmentation provides evidence of
convergent melanism in extinct marine reptiles

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Author Contributions J.L. designed the project. J.L., P.S., R.M.C. and G.D. wrote the manuscript. J.L., P.S., R.M.C., J.A.G. and P.U. prepared the images. G.D., B.P.S., M.D.S., K.R.B. and M.J.P. provided materials, observations and scientific interpretations. All authors discussed the results and provided input on the manuscript.

HISTORY,
In the early 90’s I, (Ken Barnes), found several mosasaurs on private property in the
Terlingua Texas area. I bought the property, Mosasaur Ranch, and began excavations. One of the mosasaurs, field # MRM-KB-M-3, was a Tylosaurus nepaeolicas. MRM = Mosasaur Ranch Museum, KB = Ken Barnes, M = mosasaur, 3 = third mosasaur I
found. It was found to have over 270 fossils in the stomach contents that were from three young Platecarpus planifrons and Ptychodus mortoni teeth etc. This quarry was in
thin bedded flagstone in the Boquillas Formation. My field # for this stomach contents is
SC-KB-M-3, SC = Stomach Contents. I recently donated my marine fossil collection to
the Shuler Museum of Paleontology, at Southern Methodist University, Dallas Texas.
The SMU locality # for this Tylosaur AND the stomach contents is SMU76532. I myself
would prefer that significant elements, such as this skin, were given a separate element
number after the locality number.
This skin fossil was found in two parts of a thin limestone layer that split like splitting a
thin piece of paper (Figure 1 and 2). This manuscript, “SKIN PIGMENTATION”, studied
preserved skin from fossil sea turtle, Ichthyosaur and the larger piece of mosasaur skin, (A). I have the smaller piece, (B), at my museum. I was always curious why under a microscope there was no evidence of the actual preserved skin. Now we know the only thing preserved was the pigmentation. I do believe this locality is older than 86 Myr, it is about 50+ meters below the Santonian-Coniacian boundary, (Figure 5).

“86-Myr-old mosasaur (SMU76532; Shuler Museum of Paleontology)”

Figure 1, From Figure 3, in above manuscript rotated, arrow added is same match line as shown in red on figure 2.
Figure 2, A) is the larger piece of skin studied in “Skin Pigmentation”; B) is the smaller piece of skin that I have at Mosasaur Ranch Museum; Far left a) is the broken tip of a shark tooth; far right b) is the impression of the same tip of the shark tooth; Upper a and b) are the same scale impression; a-a and b-b) are match lines where these two pieces fit together.
Figure 3, The bottom side of the 1 and 1/2 inch thick layers of Boquillas limestone containing most of the stomach contents
Figure 4, Sketch of locality SMU76532, (MRM-KB-M-3)
Figure 5, Stratigraphic section of some Mosasaurs Ranch Museum mosasaurs; Note the location of *Inoceramus undulatoplicatus*

Thank you, Ken Barnes