New Mexico's most prolific Upper Cretaceous shark assemblage: Hosta Tongue fo the Point Lookout Sandstone, Bernalillo County, New Mexico (abs.)

K. Wright\textsuperscript{1}, J. Bourdon\textsuperscript{1}, S. G. Lucas\textsuperscript{1} and R. Pence\textsuperscript{1}

\textsuperscript{1}NM Museum of Natural History, 1801 Mountain Road NW, Albuquerque, NM, New Mexico, 87104

We present a follow-up to a preliminary analysis published in 1989 of a selachian fossil assemblage in the Upper Cretaceous Hosta Tongue of the Point Lookout Sandstone along the Rio Puerco drainage in Bernalillo County. The Point Lookout Sandstone is the lowest stratigraphic unit of the Mesa Verde Group, and the lower Santonian Hosta Tongue is the lowest horizon of the Point Lookout Sandstone. An extremely prolific lens of selachian teeth and other fossils is located at NMMNH locality 297. The fossiliferous lens is about 6 cm thick. Approximately 80 kg of in-situ material was processed and screened in a sieve stack down to 0.5 mm mesh. This process yielded about 5000 selachian teeth that represent members of at least six orders, with at least 30 species represented, including several previously undescribed genera and species and others new to the New Mexican fossil record. The teeth show little transport wear. Also present in great numbers are small calcified selachian centra and small to very small teleost teeth and vertebrae. The assemblage is dominated by \textit{Scapanorhynchus}, \textit{Pseudohypolophus}, and \textit{Ptychotrygon}. This dominance of small Lamniformes and durophagous species suggests a shallow water environment and a terrestrial component suggests a deltaic condition. This terrestrial component includes teeth of crocodylians, hadrosaurs and dromaeosaurs and bits of wood and plant seeds. Also present in the fauna are teeth and scales of gars and shell fragments of softshell turtles (Trionychidae). Some of the other genera represented are: \textit{Hybodus}, \textit{Lonchidion}, \textit{Ptychodus}, \textit{Squatina}, \textit{Cederstroemia}, \textit{Cantioscyllium}, \textit{Chiloscyllium}, \textit{Odontaspis}, \textit{Carcharias}, \textit{Squalicorax}, \textit{Crealamna}, \textit{Cretoxyrhina}, \textit{Protolamna}, \textit{Ischyrhiza}, \textit{Sclerorhynchus}, \textit{Texatrygon}, \textit{Rhinobatos}, \textit{Protoplatyrhina}, and \textit{Myleadaphus}.

\textbf{Keywords:}
vertebrate paleontology, shark assemblage, fossils, stratigraphy

pp. 51, \url{https://doi.org/10.56577/SM-2010.657}

2010 New Mexico Geological Society Annual Spring Meeting
April 16, 2010, Macey Center, New Mexico Tech campus, Socorro, NM
Online ISSN: 2834-5800