

ADDITIONAL LATE CRETACEOUS FISHES  
FROM THE DAKOTA ROSE GRANITE QUARRY,  
GRANT COUNTY, SOUTH DAKOTA

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ABSTRACT

Heretofore, few fish from the Late Cretaceous sediments which overlie the Precambrian Ortonville Granite in northeastern South Dakota have been mentioned. These sediments have been correlated with middle Turonian strata of the Carlile Shale based on fossils similar to those characteristic of the *Collignonicerias wollgari* zone (Shurr and Cobban, 1979). When Zangerl and Sloan (1960) described a specimen of *Desmatochelys lowi* from the Dakota Rose Granite Quarry, they indicated the presence of the sharks, *Isurus*, *Squalicorax*, and *Ptychodus*; clupeoid fishes; and a species of *Ichthyodectes*. Bardack (1965) in his review of the chirocentrid fishes noted two skulls and a trunk segment of *Ichthyodectes* and isolated scales of *Gillicus*.

Additional specimens brought to our attention by Dr. James Van Alstine of the University of Minnesota, Morris, indicate an additional taxon, *Cimolichthyes nepaholica*, and cranial material of *Gillicus arcuatus*. The specimens collected by Mr. Wes Olson and party of Clinton, Minnesota, consist of several skulls with three dimensional preservation, a negative impression of a head with a portion of the body, and several associated pectoral and pelvic fin elements. In the matrix composed of massive, poorly sorted, coarse-grained arkosic conglomerate are teeth from the galeoid sharks, *Isurus* sp. indet. and *Squalicorax falcatus*, and the ptycodontid shark, *Ptychodus janewayii*. In addition, there are fragments of wood and miscellaneous fish elements, particularly fish vertebrae and small pointed teeth which may belong to *Cimolichthyes*.

These sediments and their contained ichthyofauna were deposited along the Sioux Ridge among the small granite islands on the northwestern margin of the midcontinental epeiric sea.

## REFERENCES

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- Zangerl, R. and R. E. Sloan. 1960. A new specimen of *Desmatochelys lowi* Williston, a primitive cheloniid sea turtle from the Cretaceous of South Dakota. Fieldiana, Geology. 14:7-40.