

Helodus is an upper Devonian, Subcarboniferous, and Carboniferous genus, to which has been referred a number of detached, anterior teeth which have been given provisional specific names and which are generally regarded as belonging to *Cochliodont* sharks. It first appears, on this side of the Atlantic, in the Chemung (upper Devonian) of Pennsylvania, but is better known from over a dozen species from the Subcarboniferous of the central States (Iowa, Indiana, etc.) and is sparingly represented in the Coal Measures of Illinois. The genus was originally described from the Carboniferous of Great Britain, where the limestone series and the Coal Measures have furnished material for a number of species.

The Roche Miette specimen differs in form from hitherto described teeth referred to the genus *Helodus*. It distantly resembles *H. gibberulus*, Agassiz, from the Carboniferous limestone of Britain, a species which is recognized as having a Devonian-Carboniferous range in the United States. The genus is new to Canada. In the Roche Miette tooth there are incipient lateral cones; in *H. gibberulus* these are highly developed. Small, polished, pitted teeth with a subsidiary tubercle on either side of a tumid, subconical, central dome, stated by Newberry¹ to be indistinguishable from *H. gibberulus* of the British Isles, occur in the Chemung and Waverly of Pennsylvania and in the Mountain Limestones of Illinois and Indiana.

As the fish tooth from the summit of Roche Miette is apparently not referable to any described species of the genus to which it is considered to belong, and as this genus ranges from the Chemung up into the Coal Measures, there is no evidence supplied by the fish tooth in question as to the exact age of the rocks at the summit of Roche Miette, whether they are uppermost Devonian or belong to a higher horizon. The invertebrate fossils, however, which occurred with the fish tooth, have been studied by Dr. Percy Raymond of this Survey, who pronounces them to have a general upper Devonian aspect. This opinion, as to the age of the beds, is concurred in by Mr. Dowling on stratigraphical grounds.

¹The Palaeozoic Fishes of North America, Vol. XVI, Monographs of the U.S. Geological Survey, 1889.

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