Devonian Fish Remains from the Eifel*

by

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Already many times fish remains from the Devonian of the Eifel have been made known by H. von MEYER, BEYRICH, KAYSER, von KOENEN, EASTMAN, and WINTERFELDT. It must perhaps be of interest that the Tübingen Museum also possesses several such specimens.

First of all, there are preserved 2 small armor remains (a few centimeters long) from the Middle Devonian of Gerolstein, which are best referred to *Dinichthys eifelensis* KAYSER; further an anteroventrolateral plate of a *Dinichthys*, which differs, as seems to me, from the known *Dinichthys* species by the nearly right angle of the process placed in the posterior angle with the side edges; the specimen has a length of 7 cm but is incomplete.

Thus an ichthyodorulite is present, whose base and posterior side are absent; thus the genus is also not to be determined without much acquaintance with this subject. The specimen has a length of 3.5 cm; the impression found nearby on the other hand has a length of almost 5 cm. The anterior edge is knife-sharp and the side surfaces are provided with narrow, but clear longitudinal ridges that lie close together. The posterior part, preserved only in traces, breaks off in a sharp edge and shows transverse striping. The stone mass fills up the inner cavity, which is comparatively large (see Fig. 1). The whole spine is strongly compressed sideways and scarcely noticeably curved towards one side, which stands out in the front view.

The most interesting and also the best preserved piece is a lower jaw of *Rhynchodus*, which Fig. 2 shows. The genus *Rhynchodus* NEWBERRY was hitherto known only from North America, this is, as far as I know, the *first European find*. The jaw pieces, which are described in a series of species as *Ptyctodus*, *Rhynchodus*, and *Mylodus*, are usually classified with the chimaeras. *Dinichthys* jaws have also a certain similarity, but apart from the usually very much more considerable size, a second, rather

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* Original reference: Huene, F. v. 1900. Devonische Fischreste aus der Eifel. *Neues Jahrbuch für Mineralogie, Geologie und Paläontologie* 1900 (I): 64-66.

smaller tooth notch appears not far behind the most anterior one; this is not the case in the Tübingen specimen. Thus *Rhynchodus* and *Ptyctodus* have a downwards hook-like process in front that *Dinichthys* does not possess. In our specimen this process seems to be indicated. The above reasons determined for me to place the fossil in *Rhynchodus*. The height measures over 3.5 cm, the length about 3, with the impression however 4.5 cm. Thus it belongs to a comparatively large species. It cannot be readily compared with *Rh. major* [1] EASTMAN: the point is broader; rather with *Rh. rostratus* [2] EASTMAN, but which is smaller. Thus, because of its occurrence outside the American distribution region, I propose to name it *Rhynchodus emigratus* n. sp. The anterior edge is rather strongly convex. In front the jaw is 5 mm thick below, but reduces at the point to 1 mm. The upper edge is sharp for cutting and runs first downwards, then backwards almost in a straight line. In one place of this edge fine ridges, which are curved obliquely upwards, appear in the bone substance below the broken-off uppermost layer. Deeper parallel grooves are recognized on the anterior edge where the enamel is split off. The Tübingen collection possesses yet another very small piece from Gerolstein that probably also belongs here.

I may have only commented on these few fish remains and hope that the material from European localities will soon increase.

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[1] *Am. Nat*. 32, 1898, pp. 483, 487.
[2] *Ibid*, pp. 483, 487.