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(Continuation of Contributions from the Museum of Geology)

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A NEW PALEONISCID FISH, *EURYLEPIDOIDES SOCIALIS*, FROM THE PERMO-CARBONIFEROUS OF TEXAS

BY

E. C. CASE



UNIVERSITY OF MICHIGAN PRESS  
ANN ARBOR

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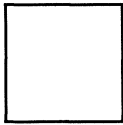
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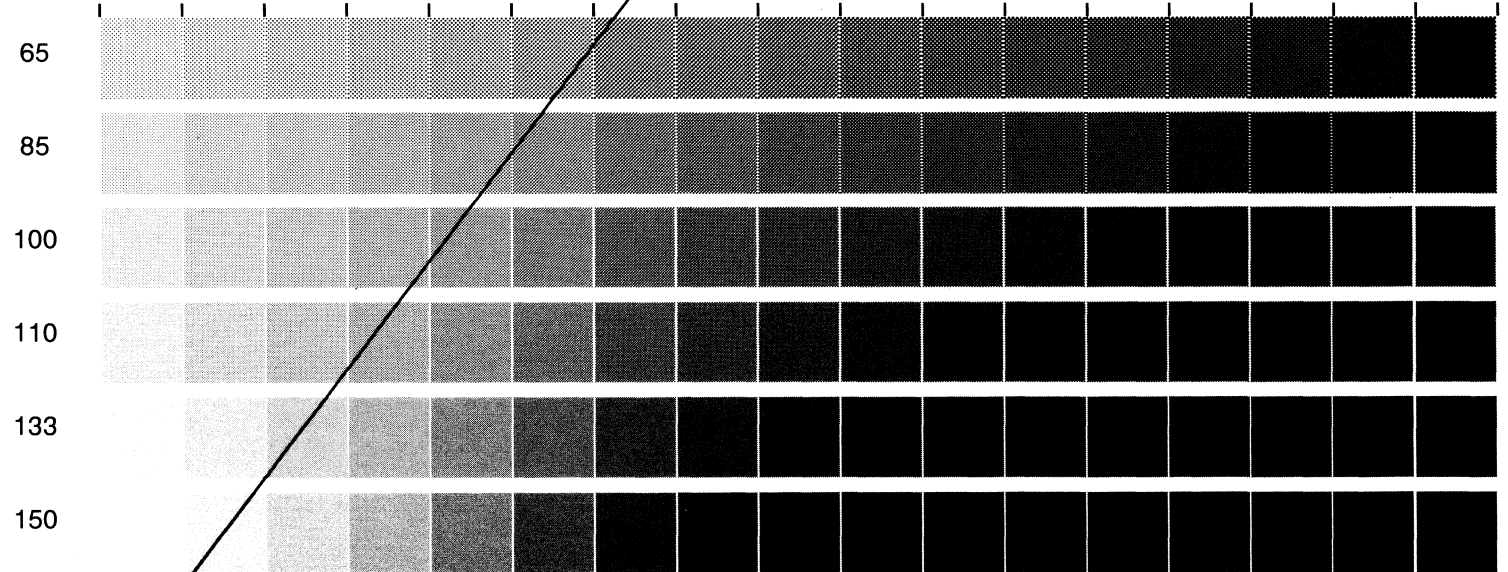
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## CONTRIBUTIONS FROM THE MUSEUM OF PALEONTOLOGY

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*(Continuation of Contributions from the Museum of Geology)*

### UNIVERSITY OF MICHIGAN

*Editor:* EUGENE S. McCARTNEY

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*(Continued on inside of back cover)*

A NEW PALEONISCID FISH, *EURYLEPIDOIDES SOCIALIS*, FROM THE PERMO-CARBONIFEROUS OF TEXAS

By E. C. CASE

IN THE summer of 1929 an expedition from the Museum of Paleontology of the University of Michigan collected the remains of many small fish from the Wichita formation near Dundee, Texas. The fragments proved so interesting that Mr. W. H. Buettner, the discoverer of the fossils, was especially charged to search for more material on a second expedition in 1933. He was successful, and from the combined collections it has been possible to complete a reconstruction.

The fossils were found in a light brown, limonitic clay, closely pressed together and broken so that no single specimen was complete. Such parts as are preserved show the scales and bones very satisfactorily, but it has been a slow process to piece together a complete reconstruction from these parts. Fortunately several heads, bodies, and two or three specimens preserve the caudal region in particularly good condition. From this material the length of the body was determined by counting the scale rows and eliminating the overlapping portions. The result is shown in the reconstruction, Figure 1, and gives as satisfactory an idea of the fish as would a lengthy and detailed description.

One skull, exposed from the right side, revealed practically all parts of the structure and but little was added from other specimens. Unfortunately, the outlines of bones could only be followed, in many places, by examination under water or alcohol with a binocular microscope and could not be brought out in a photograph. The head is typically paleoniscid, with the characteristic form of the maxillaries and other bones. The branchiostegal

rays were obscure and have been added from another skull. The bones of the cheeks and facial region were marked by an irregular, linear sculpture of fine lines, visible in only a few of the specimens. The bones of the roof were apparently smooth. The teeth are exceptionally slender and minute.

The most characteristic feature of the new genus and species is the presence of a single row of much-elongated scales upon the side of the body, recalling the condition in *Eurylepis*. This is very obvious in several specimens. The course of the lateral line is clearly shown on these scales by a slight transverse elevation and a notch in the posterior edge of each scale.

The scales are marked by a series of slightly irregular lines running almost transverse to the long axis of the scale, but inclined

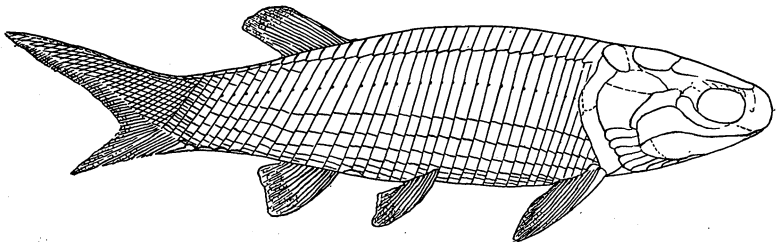


FIG. 1. Reconstruction of *Eurylepidoides socialis*.  $\times$  about  $\frac{5}{4}$

slightly downward and backward. The posterior edge of the scales is smooth, not pectinate. In many places this sculpture has been destroyed.

The elongate caudal lobe, with the characteristic change in the form and arrangement of the scales, is well shown in one specimen. The enlarged scales at the origin of the caudal fin, passing into fulcra, are easily made out.

The position of the fins was established by counting scale rows between the various fins and between the fins and other fixed points in the various fragments; there can be but very little error in the placement. The exact length of the fins is less certain, but here, also, the error cannot be great.

The holotype of the new genus and species, *Eurylepidoides*

*socialis*, is a posterior half of the body, marked "holotype," showing the dorsal, pelvic, and anal fins and the base of the caudal lobe. It bears, with the paratypes used in the reconstruction, the number 11663 in the collection of the Museum of Paleontology of the University of Michigan.





(Continued from inside of front cover)

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