PIKE.

Fundus of a Pike showing the disc falciform process.

PERCH PIKE.

Fundus of a Perch Pike showing a different variety of falciform process.

PERCH PIKE.

The anterior part of the eye as seen with the ophthalmoscope. (a) Note the elongated pupil forwards showing the periphery of the lens. (b) The attachment of the falciform process to the posterior surface of the lens. (c) The commencing cataract in the lens.

CORRESPONDENCE

FISHY VISION*

To the Editors of THE BRITISH JOURNAL OF OPHTHALMOLOGY.

SIRS,—In reply to Sir James Barrett's letter in the August number of the *British Journal of Ophthalmology*, I know Beer's paper quite well "Die Accommodation des Auges in der Thierreihe."

In the fresh-water fish which I have examined I have been unable to confirm his observations on accommodation, but this may be because the eyes of most fresh-water fish are so small. I have tried them with drugs (atropine and eserine) and also estimated their refraction in water before and after death, and in all cases they were hypermetropic or emmetropic, although, of course, out of water highly myopic.

Microscopically, there is no ciliary body and I was not able to detect any real muscular structure. There is a falciform process which resembles a pecten which is attached to the posterior part of the lens to one side of the equator and is essentially a vascular structure as will be seen by the enclosed illustration.

In doing a retinoscopy on fish the reflex essentially comes from the pigment cell layer and silvery layer of the choroid; the anterior part of the retina being transparent like the human retina would not therefore vitiate estimation of refraction by this method, as suggested in Sir James Barrett's letter.

I enclose a drawing of the fundus of a pike seen with the ophthalmoscope. I do not think has been previously observed. The drawing was made in the water without any correcting lens at all in front of the ophthalmoscope and the fundus could be easily seen even with a +3.0 D.sph., showing that the eye is certainly not myopic, as is usually described. The dark pigmentation is, of course, due to the large amount of retinal pigment, the bright points being the silvery layer of the choroid. In fish this layer seems to be the same colour as the silvery layer on the surface of the iris. In angel fish where the colour varies, the silvery layer of the choroid also varies in corresponding colours.

Yours faithfully,

M. S. MAYOU.

September 12, 1932.

* The *Fishing Gazette*, February 20 to May 28, 1932.