

Law enforcement applied field form with copy

INSTITUTE FOR FISHERIES RESEARCH
UNIVERSITY MUSEUMS
UNIVERSITY OF MICHIGAN
ANN ARBOR, MICHIGAN

December 16, 1932

Report 186

HOW TO IDENTIFY BLUE PIKE, WALL-EYES (=YELLOW PICKEREL = YELLOW
PIKE), AND SAUGERS

DEC 19 1932

FISH DIVISION

By Institute for Fisheries Research

Many fishermen readily distinguish between these three closely-related species by general appearance. These fishes are much alike, however, and they are frequently confused. Since size regulations differ for each (the sauger not being protected, the blue pike being protected below eleven inches, and the yellow pike being protected under one and a half pounds) it is desirable that fishermen, game wardens and others who have occasion to recognize them at sight be able to make accurate identifications.

The Institute for Fisheries Research has been asked to prepare, for use by the Department of Conservation a brief description of the means used for identifying the three confusing species.

All are members of the same genus Stizostedion. The blue pike (S. glaucum) is known, in Michigan, only from Lake Erie. The yellow pike or wall-eye (S. vitreum) ranges throughout the great lakes and ascends many rivers. It is widely distributed in the inland lakes and is by far the most important of the three species as a game fish. The sauger (S. canadense) inhabits the great lakes, and ascends some of the rivers but is absent from the inland lakes, with a few exceptions.

The common names of the wall-eyed pike and its relatives are somewhat confusing, especially since the names "pike" and "pickerel" are frequently used for the northern pike and related species of the genus Esox. These fishes have no spines in the fins and have a single dorsal fin. On the other hand, the wall-eye and

others of the Stizostedion group have two dorsal (back) fins, the first one with sharp spines.

While general appearance is sufficient to distinguish each of the three species, when one is thoroughly familiar with each, exact differences in color and structure should be used to make a positive identification. Structure characters are, of course, most reliable because changes in coloration usually occur after death.

A field key and a table of differences has been prepared for the use of those interested in learning the points distinguishing the blue pike, yellow pike and sauger.

Since it is necessary to use a few technical terms, these are here defined: bony interorbital—the distance between the eyes excluding fleshy structures bordering the eye; cheek—the area immediately behind eye and limited by the anterior bone of the gill cover; dorsal fin—the back fin; pectoral fin—the paired fin of each side of fish just behind head; pyloric caecae—finger-like extensions of the intestine at the point where the stomach ends; soft ray—the flexible, usually branched supports of the fins; spine—the stiff, unbranched supports of fins; orbit—measurement of the eye socket diameter.

Field key.

[Should serve to quickly identify the majority of specimens. Read characters of A and AA, choose which fits the specimen in question, and thus eliminate one choice. If your specimen fits AA, proceed to B and BB and decide again which fits the key.]

A. First dorsal fin conspicuously spotted with many rounded black spots, pyloric caecae 5 to 8 in number.

Sauger (S. canadense)

AA. First dorsal fin not conspicuously spotted with many rounded spots, a large black mark on posterior end of first dorsal fin, pyloric caecae 3 in number.

B. Eye very large, its vertical diameter more than half depth of

head at same point; bony interorbital measurement contained 1.4 to 2.0 times in orbit length

Blue pike (S. glaucum)

BB. Eye smaller, its vertical diameter less than half depth of head at ^a same point, bony interorbital measurement contained from less than 1.0 to 1.4 times in orbit length.

Walleyed pike (S. vitreum)

SUMMARY

Sauger
S. canadense
= sand pike

Blue pike
S. glaucum
= blue wall-eyed pike

Wall-eyed pike
S. vitreum
= wall-eyed pike
= pike perch
= yellow pike
= yellow pickerel

Cheeks	Usually <u>closely</u> scaled	Usually sparsely scaled	Usually sparsely scaled
Eye	Smaller	Larger (see key)	Smaller (see key)
Number of main soft rays in second dorsal fin	17 to 20, usually <u>fewer than 19</u>	18 to 22, usually 20 or 21	18 to 22, usually 20 or 21
Pyloric caecae	<u>Number 5 to 8</u> , longest shorter than stomach	Number 3, each as long as stomach	Number 3, each as long as stomach
Markings of first dorsal fin	<u>Many conspicuous rounded blackish spots</u>	One large blackish blotch at posterior end of first dorsal fin	One large blackish blotch at posterior end of first dorsal fin
Color (in life)	Yellow conspicuous	<u>Without conspicuous yellow</u>	Yellow conspicuous
Size range	Up to two pounds	Up to three pounds	<u>Up to twenty pounds</u>
Distribution in Michigan	Great Lakes, rivers, a few inland lakes.	Lake Erie	Great Lakes, rivers and <u>inland lakes</u>