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A New Roe Knife

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Marine Resource Advisory
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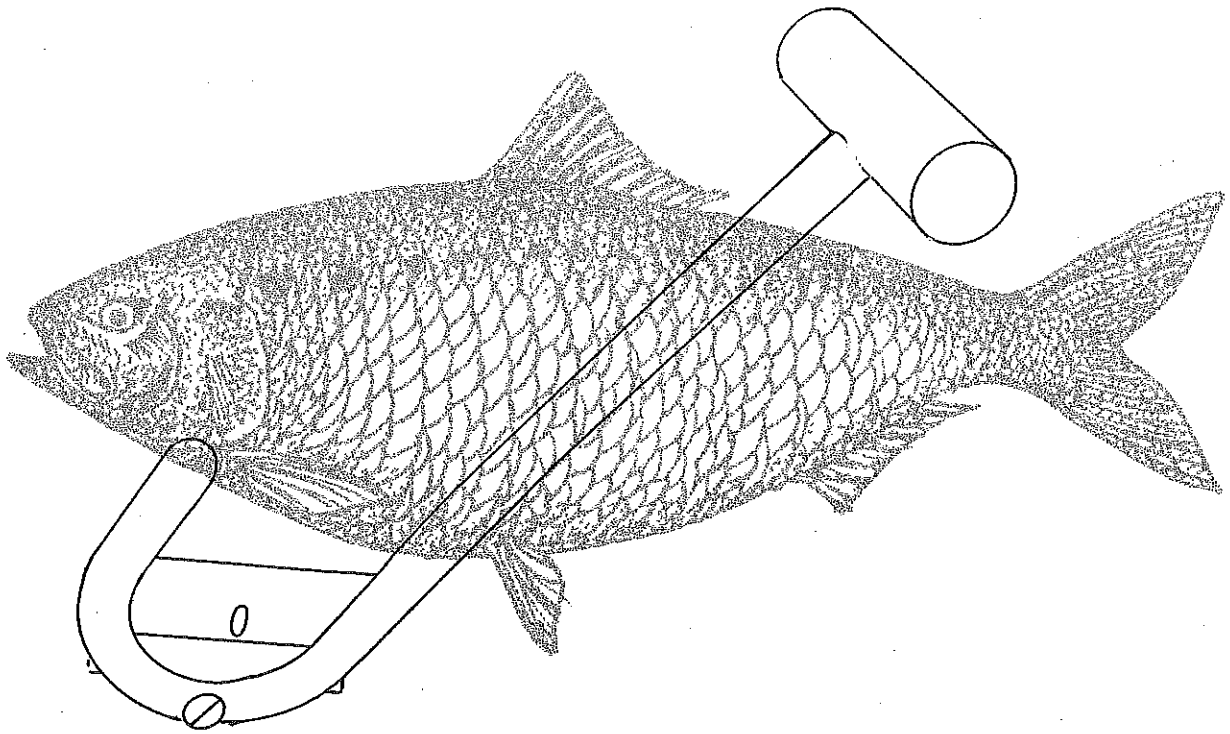


A KNIFE DESIGNED EXCLUSIVELY for opening fish for roe removal may prove a boon to shad processors, in light of preliminary tests. The new knife is faster and more efficient to use than a conventional knife, and because of its unique blunt-end design, poses less of a threat to the fragile roe.

The "roe knife" was first brought to the attention of the Marine Advisory Services by personnel in the Division of Marine Fisheries at the Virginia Institute of Marine Science (VIMS) during the 1978 shad season. Several processors and fishermen, upon hearing of this new tool, asked for the chance to field test it. A few of the knives were produced locally to accommodate them. All who tried the roe knife were pleased with the results and plan to continue using it.

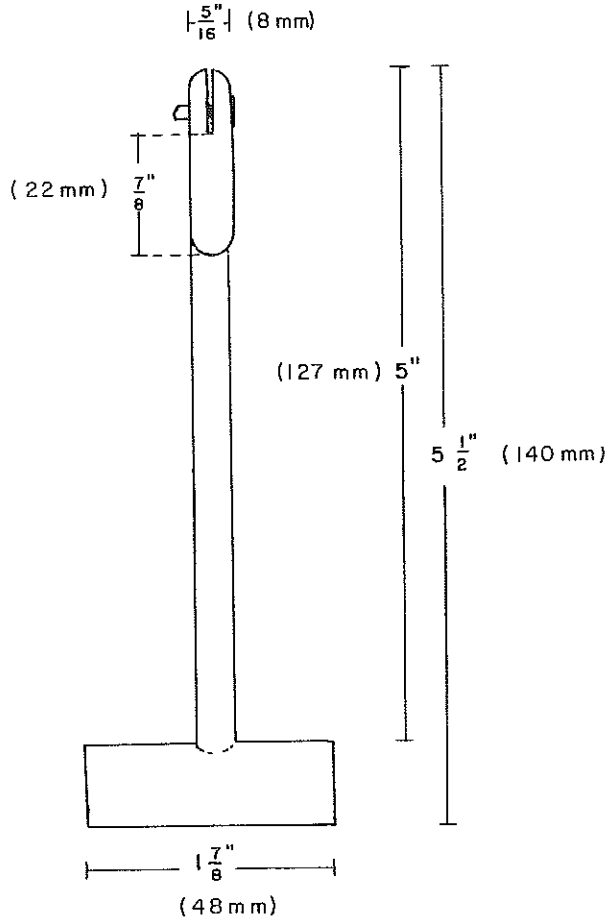
One processor said his crew of four could cut and remove the roe from 500 lbs. of shad per hour with the new knife. The same crew could only process 300 lbs. per hour using conventional knives. This processor attributes the increase in

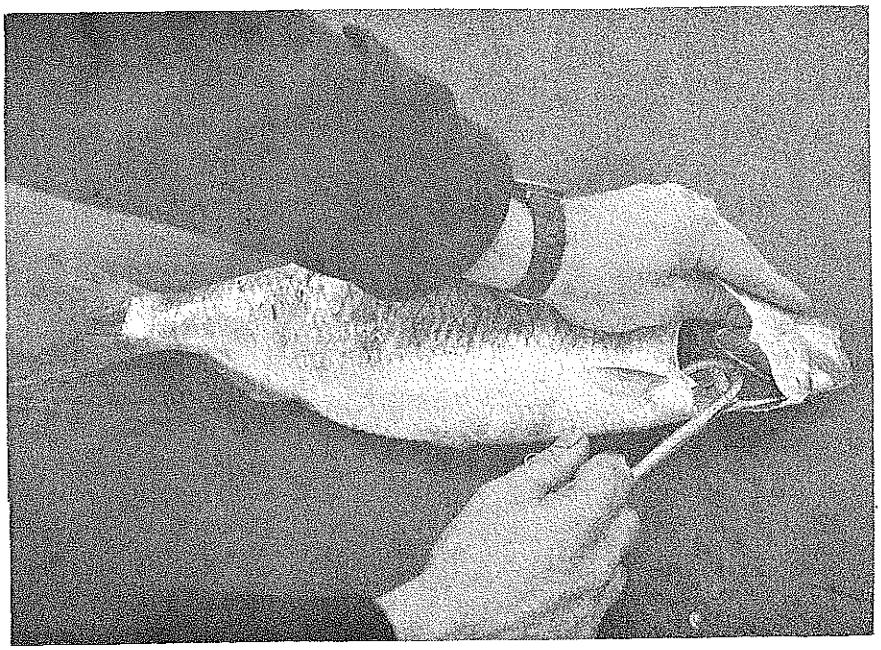
A NEW ROE KNIFE (cont.)

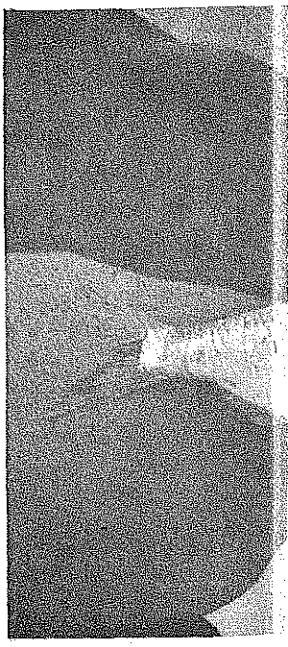
production to the shift in labor made possible by the new knife. Formerly, using conventional knives, three men would cut while a fourth removed the roe. Using the roe knife, one man cuts while three remove the roe. The cutter not only opens fish at a much faster rate, but does it with little or no roe damage. The knife is used by inserting the rounded "hook" tip into the gill opening of the fish and drawing it along the abdomen to the anal vent. The only portion that enters the body cavity is the smooth hook tip. Since the blade never contacts the roe, the cutting operation can proceed quickly and efficiently. An added benefit is that the cleaned shad carcasses maintain a fair market value because of the ventral location and neatness of the cut.

The roe knife consists of an 8" piece of 5/16" diameter stainless steel rod curved at one end to form a hook. A saw cut through the curved section of the rod allows the insertion of a conventional single-edged razor blade. The blade is exposed only within the curve. An adjusting screw runs perpendicular to the cut to hold the blade in position. A handle is attached through the rod to the end opposite the hook.

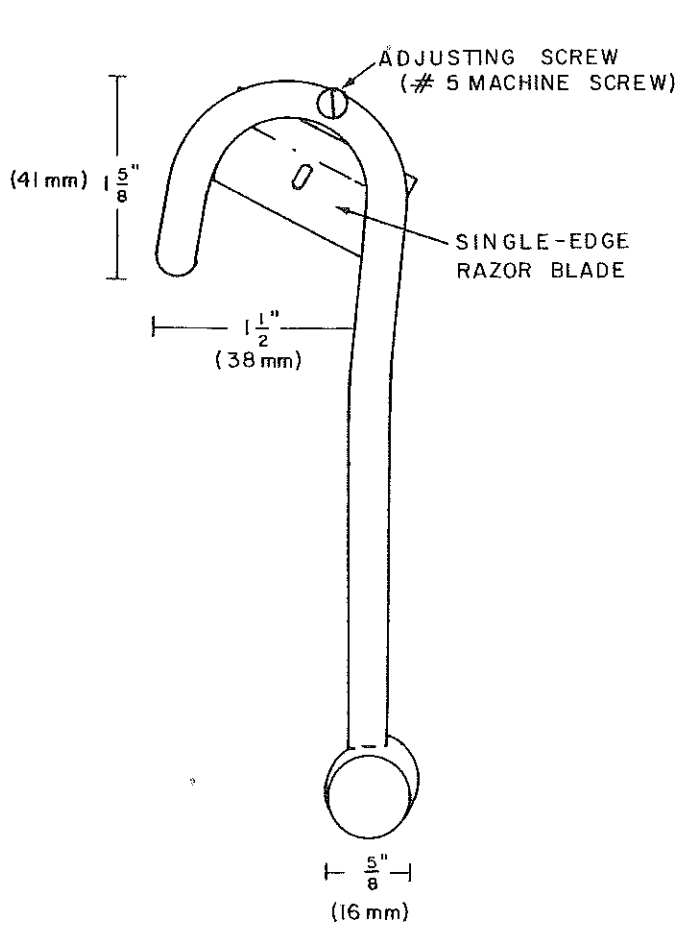
Processors feel the new knife is superior to conventional roe removal tools used on shad. It has not worked as well on river herring and alewives because of their smaller size. It might, however, find application to other larger species where roe removal is common, such as mullet.

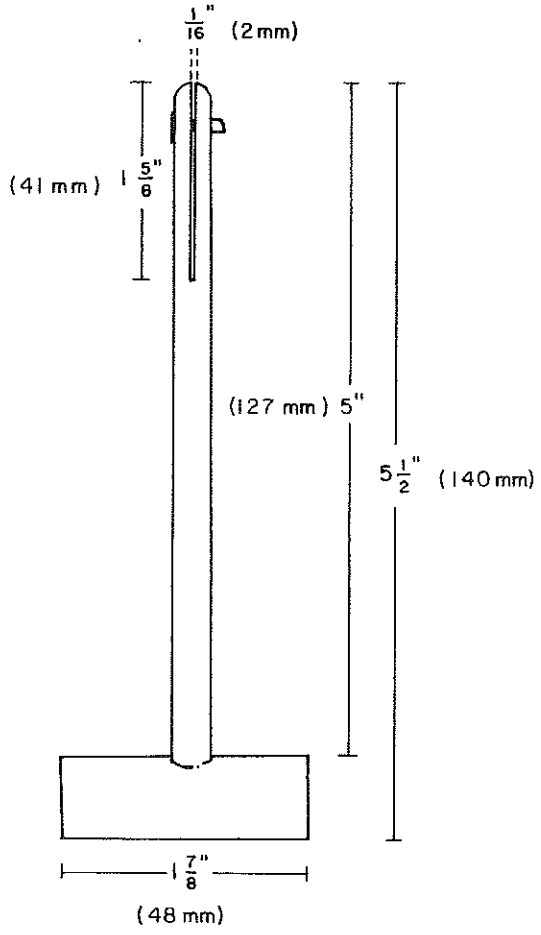


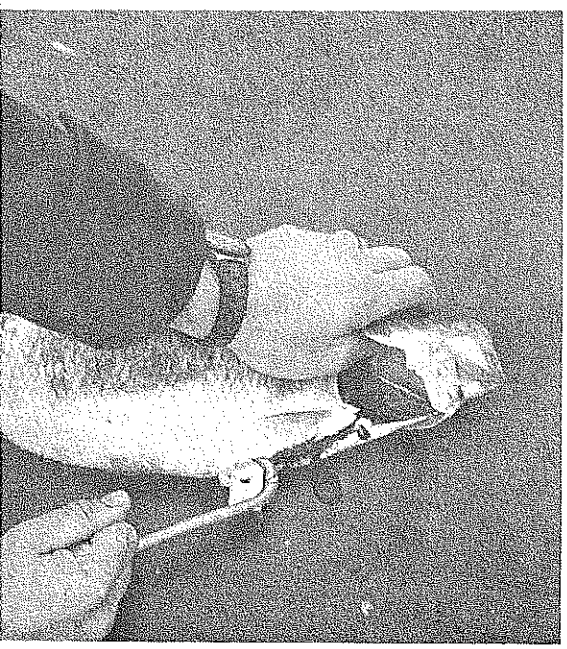


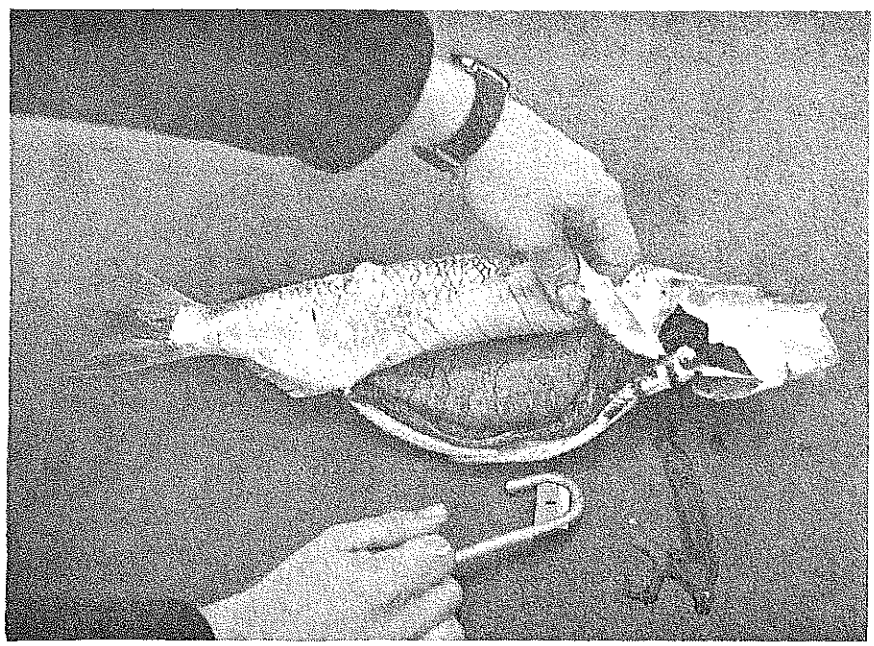


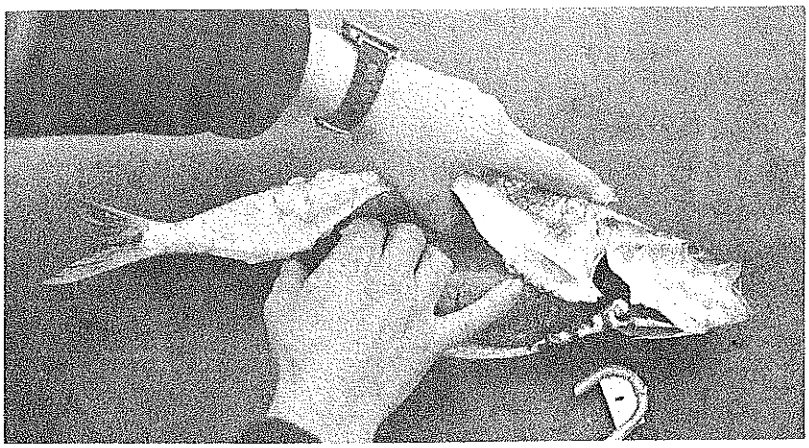
From left and continued on back page, the roe knife is inserted in gill opening and drawn along abdomen to vent without touching roe.


ADJUSTING SCREW
(# 5 MACHINE SCREW)
(41 mm) 1 5/8"
SINGLE-EDGE
RAZOR BLADE
1 1/2"
(38 mm)
5/8"
(16 mm)

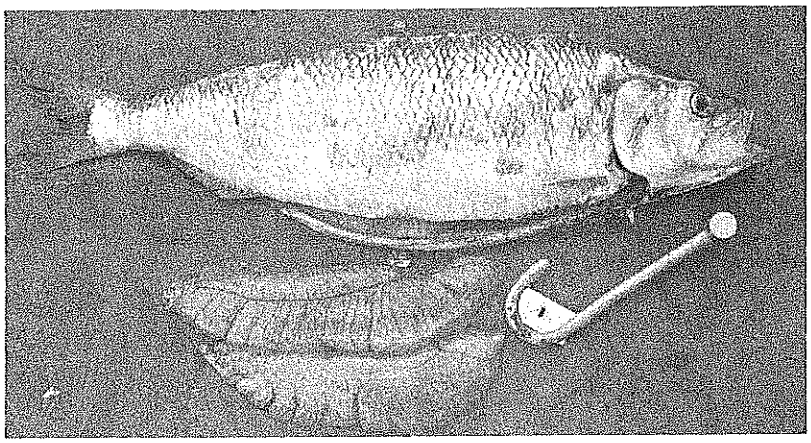

1/16" (2mm)
(41 mm) 1 5/8"
(127 mm) 5"
5 1/2" (140 mm)
7/8"
(48 mm)







The roe is now removed by hand with the...



... end result, a highly marketable shad and a quality set of roe.

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