UNDERSTANDING RIVER STRUCTURE

RIFFLES, HOLES, AND RUNS

All rivers-large and small-are comprised of a series of bottom conditions known as RIFFLES HOLES, AND RUNS. Structure situations are formed as water meanders down hill seeking the path of least resistance over bottoms of varying degrees of hardness. Riffles are formed as water flows over hard substrate that can't wash away, thus forming a shallow area creating more current. A hole is formed as the stronger current flows over and down the riffle scouring the softer substrate below the riffle, creating a wider and deeper river section. The depth of the hole depends on the steepness of the riffle, current patterns and the size of the river. Holes gradually become shallower as suspended matter sinks, as the current slows. The tail end of the hole becomes a Run, which is a river flat, an area with minimal change in depth. The bottom is usually sand and silt, with some gravel and debris such as wood and brush. At some point, the river flat winds its way down stream to another hard bottom area. A riffle forms and begins another series of RIFFLE, HOLE, RUN.

The hole that forms below the riffle is usually the deepest water in the area. {home of the fish}, where we should begin our search for the productive breaks and breaklines that the fish will use during activity periods. The upper end of the hole is a key feeding area. Here fish find a deffenent edge, a dramatic change in current and depth. The tail end of the hole usually tapers more gradually as it fades into the run. However, free-floating timber and brush often settle in this section of the hole, making it worth checking

Two major features determine how good a hole is. Breaks in the form of rocks and snags is always an attraction. However, breaks near distinct current have more potential than breaks on a flat. Breaks near the top of the hole where the current has more force is especially attractive.

Think of current as a conveyor belt that delivers food to fish. The fish can't expend too much energy holding in the current, so they use these objects to break the force of the current and funnel food into specific areas.

Large snags in the form of up-rooted trees and debris are other important features to observe. The best snags lie near or just down stream from the core of the hole, where current begins to slow. Location of snags and breaks determines how fish use these features. Rocks and stones in fast current near the top of the hole is primarily a feeding territory. A snag in quiet water at the lower half of the hole is primarily a holding or resting area. Snags near the core of the hole are resting and feeding areas.

Current has a great effect on river fish and how they react to it. Learning to "read" current breaks, eddies, boils, and slack water areas is of prime importance. Bridge pilings, channel markers, points, tributary junctions, and sharp bends in the river are all prime locations that forms CURRENT BREAKS.

Learn to recognize these prime fish holding structures by experience--seeing them and fishing them. Look and compare. The more river you see, the better you can judge where the fish will most likely be. Be willing to LOOK MORE AND FISH LESS when you first begin exploring a particular stretch.

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