Introduction to the Pike Chain Fishery Survey and Management

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The Wisconsin Department of Natural Resources (WDNR) completed the Pike Chain Fishery Survey field work during 2011. Scott Toshner, WDNR, Senior Fishery Biologist, provided the PCA Fishery Committee with a first draft report for our review. The Fishery Committee will review the report with respect to content, accuracy and proposed management. The final report will be posted on this web site. At this time we can say that what anglers suspected has been confirmed. Walleye abundance has declined sharply while abundance of largemouth bass has greatly increased. Smallmouth bass abundance also seems to have increased slightly.

We know from historic records that the Pike Chain fishery was dominated by Northern Pike, Bass, Perch and Panfish. Musky were not present and walleye, if present, were rare. Walleye became abundant as a result of stocking which began during1933 and ended in 1978. It was terminated when surveys indicated that natural reproduction maintained the population. Musky stocking is continuing.

The situation raises many questions for management. They include, can and should walleye abundance be increased through stocking, by reducing largemouth bass abundance and/or by further restricting harvest. If largemouth bass predation limits walleye survival, should their abundance be reduced and how can that be accomplished to maintain a quality largemouth fishery? Additionally, can largemouth abundance be reduced without impacting smallmouth bass which appear to control rusty crayfish?

A scientific paper I published on Little Rock Lake Wisconsin, covering the period from 1983-1990, has been copied to the web site. It helps explain why largemouth bass abundance increased. Prior to the late 1980s bass fishing in Wisconsin was open from May through October, with no size limit and a 6 fish bag limit. This and related studies demonstrated that sport fishing depleted spawning populations, nesting success, and the quality of bass fishing. To improve fishing a 12” size limit was implemented for the northern region in 1989, followed by a regulation that restricted fishing to catch and release until the third weekend in June in1992 and a 14” statewide size limit in 1998. Recent studies demonstrate largemouth bass have now become so abundant they deplete the forge bass and become stunted in many small northern Wisconsin lakes. These studies also suggest predation by largemouth bass can limit survival of young walleye.

A look into their eyes should promote understanding of why walleye were absent or uncommon historically in the Pike Chain and why they have declined. The reflective eyes illustrate their adaptation for low light conditions characteristic of darker waters. I published a paper in 1975 which describes in detail walleye diets, feeding patterns and food consumption in relation to habitat. It has also been copied to the web site for those interested to read. We need to understand walleye to define how they fit within the goal of Sustainable Lake Management. We want them but what are the costs.