

# INTRODUCTION

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The publication of George C. Becker's monumental *Fishes of Wisconsin* in 1983 was a major landmark in Wisconsin ichthyology. However, even as this book was being published, substantial new information was being gathered about the fishes of the state. From 1975–1980, the Wisconsin Department of Natural Resources (WDNR) sampled fish from nearly 5000 sites on over 1700 lakes, rivers, and streams as part of a statewide fish distribution survey (FDS) under the direction of Don Fago. Only portions of these collections were included in Becker (1983). Unfortunately, the FDS was terminated with just 45% of the waters in the state adequately surveyed. Summaries of FDS results were published by Fago (1982, 1983, 1984a, 1984b, 1985a, 1985b, 1986, 1992). As a result of the FDS, Fago (1988) created the "Master Fish File," a comprehensive database that now includes over 22,000 Wisconsin fish collections from 1900 to the present. This database is updated regularly and can be accessed through the WDNR web site ([www.dnr.state.wi.us](http://www.dnr.state.wi.us)).

Following the end of the FDS and the publication of *Fishes of Wisconsin*, many additional studies of Wisconsin waters were carried out, adding greatly to our knowledge of the taxonomic status, distribution, and abundance of Wisconsin fishes. Several noteworthy studies about native species were published, including the discovery (Cochran 1987) and analysis of variation and distribution (Cochran and Gripentrog 1992, Lyons et al. 1997) of southern brook lamprey (*Ichthyomyzon gagei*), rediscovery of skipjack herring (*Alosa chrysochloris*) (Thiel 1985, Fago 1993) and black redhorse (*Moxostoma duquesnei*) (Fago and Hauber 1993), documentation of the decline in distribution and abundance of slender madtom (*Noturus exilis*) (Lyons 1996a), and analysis of morphological variation

and distribution in slimy sculpin (*Cottus cognatus*) (Lyons 1990). The initial establishment and spread was reported for four non-native species: threespine stickleback (*Gasterosteus aculeatus*) (Johnston 1991), white perch (*Morone americana*) (Cochran and Hesse 1994), ruffe (*Gymnocephalus cernuus*) (Simon and Vondruska 1991, Pratt et al. 1992), and round goby (*Neogobius melanostomus*) (Charlebois et al. 1997, Steingraeber 1999). Occurrence and abundance trends were presented for the entire fish assemblage from certain waters, including the Bois Brule River system, Douglas County (DuBois and Pratt 1994); Devils Lake, Sauk County (Lillie and Mason 1986); Lake Mendota and other lakes near Madison (Lyons 1989a, Lathrop et al. 1992, Magnuson and Lathrop 1992); the Mississippi River (Held 1983a and 1983b, Sylvester and Broughton 1983, UMRCC 1983, Eckblad 1986, Fremling et al. 1989, Burkhardt et al. 1997, Torreano 1998); Sparkling Lake, Vilas County (Lyons 1987); the St. Croix River basin (Fago and Hatch 1993); Lake Superior (Hansen 1994, Hoff and Bronte 1999); and the Trout River, Vilas County (Lyons 1988). Factors that influenced the distribution of fish species and assemblages across broad regions of the state were analyzed by Lyons et al. (1988, 1996), Lyons (1989b, 1991, 1992, 1996b), Johnson and Jennings (1998), and Newall and Magnuson (1999) for streams and rivers, and by Tonn and Magnuson (1982), Rahel (1984), Brazner (1997), Brazner and Beals (1997), and Jennings et al. (1999) for lakes.

In this publication we have updated the information in Becker (1983) on the occurrence, taxonomic status, distribution, and abundance of fishes in Wisconsin. We have also briefly summarized nomenclatural changes.



Figure 1. Map of Wisconsin, showing the major rivers and lakes mentioned in the text.