



FRESHWATER AND DIADROMOUS FISHES OF NEW ENGLAND: IDENTIFICATION, REGIONAL PERSPECTIVES, AND TRENDS

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Freshwater fish in New England number 82 species, inclusive of native and introduced forms, resident to ponded and flowing waters of varying habitats and water quality. Sportfish species (trout, salmon, bass, pike and perch) are most recognizable, while many of the vast minnow (one-third of the fish fauna) and non-game species are more difficult to identify, particularly in the field. This seminar will primarily focus on the taxonomy and field/ laboratory identification of 25 freshwater fish families, inclusive of diadromous (migratory) species. Through lectures, minimal field sampling (minnow trapping and beach seining), examination of fresh and preserved-aquarium specimens and use of technical keys, participants will gain an understanding of the taxonomy, morphology, and ecology of New England freshwater fish. Fish origins, distributions and conservation status will be emphasized, along with an introduction to pre-contact fish remains found at Maine archaeological sites. A listing of historical and current scientific literature will also be provided. This NE-FISH seminar will be of great interest to students attending northeastern institutions of higher learning, consultants, state agency biologists/supervisors and natural historians who wish to learn about past and present freshwater fishes and resident fish species assemblages in New England freshwaters.



about the instructor

Dave Halliwell (david.halliwell@maine.gov) received his Ph.D. in Fishery Biology from the University of Massachusetts, Amherst (1989), specializing in freshwater fish conservation, aquatic habitat classification, and vertebrate taxonomy. He was employed as an Aquatic Biologist with Maine DEP (Augusta) since 1999, and retired in July 2019. Dave has spent over three decades identifying and investigating the habitats of freshwater fishes while working with northeastern State and Federal fish and water quality agencies and has considerable experience teaching University and field courses related to New England fish and wildlife. Related interests include pre-contact indigenous fish archaeological studies, aquatic habitat restoration, hydropower-flow issues, reservoir water levels, lake water quality assessment and freshwater fish zoogeographic studies. Dr. Halliwell is a co-author of the *Inland Fishes of Massachusetts* (2002) and is currently drafting a treatise on the Freshwater Fishes of New England proper.