



“Fishing for Innovation in the Natural Sciences”

Biography: Mr. Stephen Amaral, Alden Research Laboratory, Inc

Steve Amaral is a Principal Fisheries Biologist with Alden Research Laboratory, Inc., located in Holden, Massachusetts. He has B.S. and M.S. degrees in fisheries biology, both from the University of Massachusetts. For the past 22 years, Steve has been extensively involved in the design, evaluation, and application of fish passage and protection technologies at all types of water intakes. He has participated in laboratory and field testing with various screening technologies, angled bar racks and louvers, and behavioral guidance systems. In addition to upstream and downstream passage, Steve’s hydropower experience includes instream flow assessments and turbine passage survival evaluations for conventional and hydrokinetic projects. He has lead investigations of injury mechanisms experienced by fish passing through turbines and has assisted with the development of theoretical models for predicting turbine passage survival. Much of Steve’s fish passage experience has been developed from studies with endangered or threatened species, including American eel, shortnose and lake sturgeon, and Atlantic salmon. He has also served as an expert witness for issues related to the application and biological effectiveness of fish passage and protection technologies and the entrainment of fish at water intakes in the U.S. and Canada.