



Need	Improved baseline information about river herring are necessary to predict climate impacts; baseline information includes questions about life history and habitat use
Description	Topics include: Historical level of the population, life history (ocean, habitat, etc.) for all stages and habitat areas (e.g., lake, river, estuary and ocean) using consistent coastwide protocols; Habitat needs include: Downstream studies to see how salt marshes are utilized, assessments just above the tide zone and below a structure, quantitative larval assessment for habitats and 1) Ocean distribution 2) Fishing impact in the ocean environment 3) Migratory patterns coast wide for all stocks 4) Coordination across states to fill-in data gaps 5) Increased river monitoring, not just at the first dam 6) Linking river runs to water temperatures and flow 7) Environmental tolerances and thresholds (e.g., temperature) for all life stages and 8) Laboratory studies that document biological responses to water chemistry and habitat thresholds
Type	<ul style="list-style-type: none"> - DATA: Surveys and Preliminary Assessments - DATA: Indicator Based Research - PRODUCTS: Plans, Assessments, Studies
Focus Area	<ul style="list-style-type: none"> - Sustainability of Marine Ecosystems - Climate Impacts on Water Resources - Conservation/ Restoration of Sensitive Species and Habitats
Discipline	- Ecological and Biological
Sector	- Managed Ecosystems
Region	- Regional Or State -- New England -- Mid-Atlantic -- South East
Source	NMFS. 2012. River Herring Climate Change Workshop Report. Report to the National Marine Fisheries Service, Northeast Regional Office. December 27, 2012, 60pp.