An important need of a climate ready nation is understanding and projecting the effect of climate variability and change on marine fisheries. First, the historic effect of climate on fisheries along the northeast U.S. will be reviewed including observations of physical and biological changes. Second, the current impact of climate change on fishery stock assessments and management will be examined. Third, future projections of climate change and the effect on species abundance and distribution will be presented. Finally, the research and operational needs for including climate in future fishery assessment and management will be discussed.