



Climate Resilient Fisheries

Changing climate and ocean conditions are having significant impacts on the nation's valuable marine life and ecosystems, as well as the many communities and economies that depend on them. Scientists expect environmental changes such as warming oceans, rising sea levels, extreme events (e.g., hurricanes, floods, and droughts), and ocean acidification to increase with continued shifts in the planet's climate system. We are already witnessing changes in the distribution and productivity of fish stocks, disruptions to seasonal migratory patterns, and damage to shoreside infrastructure that create new challenges for fishery participants and managers.

These environmental changes impact every aspect of marine resource management at the state, regional and federal levels — from managing fisheries and aquaculture, to conserving protected resources and vital habitats. There is much at risk, economically, ecologically, and socially (or culturally). For example, outdoor recreation represented 1.8% of the United States national gross domestic product (GDP) in 2020, with boating and fishing ranking as the largest conventional outdoor activity for the nation as a whole (in terms of contribution to GDP) (BEA, Outdoor Satellite Account 2021). Coastal habitats provide important ecosystem services including, providing nursery areas for fish and protected species, and protecting people and property from storms and flooding. Preparing for and adapting to changing ocean conditions will help sustain the nation's valuable marine resources, fisheries, and coastal communities.

The plenary part of this session covers a range of topics, including: the state of science on changing climate and oceans; tools, investments and the importance of habitat for climate-resilient fisheries; on the water perspectives from the recreational fishing community; and climate scenario planning. After the opening presentations and discussion, we will break out into regional working groups to address the following questions:

- What are the recreational fishing community's key concerns about climate change impacts on fisheries?
- What does it mean to have climate-resilient fisheries?
- What is needed to achieve climate-resilient fisheries?
 - What information do we need?
 - What management tools or system(s) do we need to prepare and adapt?
- How can education/outreach and/or community science help advance climate-ready fisheries?

From this session we hope to share current climate knowledge, tools, and approaches and hear anglers' observations, experiences, concerns, and priorities related to changing ocean conditions and the marine recreational fishing community. From the break-out groups we hope to understand the recreational fishing community's vision for climate-resilient fisheries and develop activities or strategies to achieve the vision.



Additional Background Information

NOAA Fisheries Climate Change

<https://www.fisheries.noaa.gov/topic/climate-change>

NOAA Climate and Fisheries Initiative

<https://www.fisheries.noaa.gov/topic/climate-change#noaa-climate-and-fisheries-initiative>

ASMFC: Climate Change and its Impact to Atlantic Coast Fisheries Resource

<http://www.asmfc.org/fisheries-science/climate-change>

US National Climate Assessment Chapter on Oceans and Marine Resources

<https://nca2018.globalchange.gov/chapter/9/>

East Coast Climate Change Scenario Planning

<https://www.mafmc.org/climate-change-scenario-planning>

