

World's Leading Aquatic Scientific Societies Urgently Call for Cuts to Global Greenhouse Gas Emissions

Dire consequences for freshwater and marine resources without significant and fast action

Bethesda, MD (September 14, 2020) In an unprecedented [statement](#) released today, the American Fisheries Society (AFS), together with 110 aquatic scientific societies including the World Sturgeon Conservation Society, in total representing more than 80,000 scientists across the world, published an urgent climate change alarm. The societies call for drastically curtailed global greenhouse gas emissions to avoid the worst impacts of man-made climate change to fish and aquatic ecosystems. Unless urgent action is taken to reduce emissions, scientists predict catastrophic impacts to biodiversity, food safety, commercial, recreational, and subsistence fisheries and global economies.

According to the Food and Agriculture Organization of the United Nations, fish accounts for 17% of animal protein consumed globally, fishing and aquaculture directly employ almost 60 million people, and global trade in fish products has reached US\$152 billion per year, with 54% originating in developing countries.

Climate change is already altering marine and coastal ecosystems with significant implications for wild capture fisheries and marine economies. Projected increases in ocean temperature are expected to reduce the maximum catch potential globally. Many harvested stocks will shift from one area to another, or experience recruitment failure with implications for food supply and associated businesses. Increased carbon dioxide absorption is changing ocean chemistry, rendering some waters too acidic for marine organisms with calcium shells, such as oysters and clams, and threatening the base of the marine food web.

Freshwater fish are especially threatened by the impacts of climate change. While in North America 40% of the freshwater fish species today are imperiled as a result of pollution, habitat loss, water withdrawals, and invasive species, in Europe these impacts have affected up to 80% of the freshwater fish species. Climate change coupled with these existing stressors will lead to significant declines in freshwater fish, with devastating consequences for cultural, recreational, and economic value of freshwater systems. In sturgeons – one of the most endangered group of species worldwide, three quarters of the 27 species are severely reduced in abundance and range. It is projected that the changes resulting from global warming will result in local extirpations due to unsuitable habitats. “Current countermeasures employed to counteract the decline will not be sufficient in the future to ensure the survival of these living fossils” says Paolo Bronzi, President of the World Sturgeon Conservation Society.

In addition to reductions in emissions, aggressive policies and programs are required to mitigate the effects of climate change to freshwater fish and to preserve habitat essential for

resilience. If we are to avoid losing countless species that provide immeasurable benefits to society, we must mitigate the impacts of climate change on fish and fisheries and plan for adaptation required to ensure the long-term health of our freshwater, coastal, and marine ecosystems and the many economies that depend upon them. Intact, healthy habitats can help to provide resilience for fish and store carbon.