

Midwest Association of Fish and Wildlife Agencies Climate Change Technical Working Committee Report 2015

Meeting Time and Place

The committee met by conference call on October 28th, January 7th, April 8th, and May 5th.

Attendance

Six states participated in the October 28, January 7th, and April 8th conference calls. Five states participated in the May 5th call (see Appendix 1).

Executive Summary

In quarterly conference calls, committee members shared progress and obstacles in integrating climate change in fish, wildlife, and habitat management. From addressing climate change in State Wildlife Action plans to holding roundtables with stakeholders and implementing new policies, we are advancing work in our states. However, because many states do not participate on this committee, they do not benefit from the information exchange and coordination.

For 2015-2016, the committee identified two aquatic and two terrestrial climate research priorities in the region. We will work with the Association of Fish and Wildlife Agencies and federal agencies, to advance research, information synthesis, and planning on these issues

Director Action Items

None

Director Information Items –

1. **Attendance**. Although staff participation has increased in the past couple of years, full participation by staff in all thirteen states would promote information exchange and cooperation among state agencies.
2. **2015-2016 Committee Efforts**. In the last decade, federal agencies have established policies and expanded their capacity to deliver climate science, training, decision-support, and funding to state agencies. Because most states lack the capacity and expertise to develop and implement a comprehensive response to climate change, the work of Federal agencies has direct bearing on our progress. To date, coordination between states and Federal agencies regarding climate change research and planning has been insufficient.

The MAFWA Climate Change Committee determined that a proactive, direct statement of climate change research priorities to Federal agencies would improve coordination. From a list of 16 issues identified by member states, the committee identified two aquatic and two terrestrial research priorities in the region. The priorities are (Appendix 3):

Aquatic:

1. Assess the impact of climate change on lake systems and fish habitat

2. Assess the impact of rising stream temperatures, altered flow, connectivity, and interspecific interactions on macro-invertebrates, including mussels

Terrestrial:

3. Evaluate habitat restoration outcomes under extreme weather events and climate change
4. Assess the response of deer, moose, elk to the direct and indirect impacts of climate change

The Committee will work with the Association of Fish and Wildlife Agencies, U.S. Geological Survey and U.S. Fish and Wildlife Service to advance research, information synthesis, and planning on these issues.

3. **Federal Budget.** In response to a request for comments about federal budget priorities, this committee reviewed FY15 budget proposals for several agencies engaged in climate change science, planning and adaptation work relevant to fish and wildlife. Committee members support proposed increases for the following:
 - U.S. Fish and Wildlife Service, Science Support (including LCCs). This program has produced information (e.g., vulnerability assessment on Eastern massasauga, ruffed grouse, and migratory birds) and partnerships (e.g., aquatic restoration, forest management) to assist managers in responding to climate change.
 - U.S. Fish and Wildlife Service, State and Tribal Wildlife Grants. This program has funded proactive conservation for declining species including research and monitoring projects, land acquisition, and habitat improvement projects that foster partnerships between public and private landowners. This program has been used to develop vulnerability assessments for fish and wildlife species and integrate climate information into Wildlife Action Plans.
 - U.S. Geological Survey, National Climate Change and Wildlife Science Center/Department of the Interior Climate Science Centers. This program has produced research (e.g., Winter Severity Index and wildlife response), partnerships (e.g., stream temperature monitoring) and synthesis products (e.g., adaptive forest management, integrating climate change into State Wildlife Action Plans) to assist managers in responding to climate change.
4. **Coordination.** This committee will continue to rotate the chairperson to align with the host state of the Director's meeting. For 2015-2016, Missouri's representative will assume the role.

Time and Place of Next Meeting

In 2015-2016, the committee will meet quarterly by conference call.

Appendix 1. Meeting Attendance

State	Name	Agency	October	January	April	May
Illinois	Ann Marie Holtrop	Department of Natural Resources	Y	Y		Y
	Jim Renn	Department of Natural Resources				
Indiana	Vacant	Department of Natural Resources				
Iowa	Katy Reeder	Department of Natural Resources	Y	Y	Y	Y
Kansas	Vacant	Department of Wildlife, Parks, and Tourism				
Kentucky	Vacant	Department of Fish and Wildlife Resources				
Michigan	Chris Hoving	Department of Natural Resources		Y	Y	
Minnesota	Olivia LeDee	Department of Natural Resources	Y	Y	Y	Y
	Pete Jacobson	Department of Natural Resources		Y	Y	Y
Missouri	Janet Sternburg	Department of Conservation	Y	Y	Y	
Nebraska	Rick Schneider	Game and Parks Commission	Y	Y	Y	Y
North Dakota	Terry Steinwand	Game and Fish Department				
Ohio	Nathan Stricker	Department of Natural Resources				
South Dakota	John Lott	Game, Fish and Parks				
Wisconsin	Tara Bergeson	Department of Natural Resources	Y			Y
	Tricia Knoot	Department of Natural Resources			Y	

Appendix 2. Organizational Guidelines.

ORGANIZATIONAL GUIDELINES FOR THE MIDWEST ASSOCIATION OF FISH AND WILDLIFE AGENCIES CLIMATE CHANGE TECHNICAL WORKING COMMITTEE

Mission: Advance wildlife and fish conservation in the member states of the Midwest Association of Fish and Wildlife Agencies (MAFWA) by providing a forum to facilitate sharing of climate change adaptation information, strategies, and resources, activity that will result in coordinated fish and wildlife adaptation planning actions and recommendations to MAFWA from the member states.

Objectives:

1. Provide a forum for the discussion of how fish and wildlife agencies are addressing climate change in member states, including how agency staff view the role climate change plays in conservation, and how climate considerations are integrated into agency organizational structure, policy, and planning efforts.
2. Define common priorities, develop coordinated strategies, and seek multi-state grants to address climate change threats to fish and wildlife and their habitats in member states (as identified in their climate adaptation plans, if such plans exist).
3. Stimulate an exchange of information among member states on legislation, administrative rules, adaptation and mitigation activity, education, funding and research related to climate change and fish, wildlife, and habitat.
4. Ensure coordination and cooperation among member states and federal agencies in dealing with programs to address the likely impacts of climate change.
5. Work closely with the Association of Fish and Wildlife Agencies' Climate Change Committee, the Landscape Conservation Cooperatives, and other regional committees, institutions, organizations and groups working to address climate change.
6. Stay up-to-date on climate change issues that impact fish and wildlife and inform/advise the Midwest Association of Wildlife Agency directors on pertinent issues and solutions.

Membership: The membership of the MAFWA Climate Change Technical Working Committee (MAFWA CCC) is open to employees of member states and provinces. Member states will be allowed one vote each, regardless of delegation size. Representatives of federal agencies, research institutions, conservation organizations, and other individuals may be invited to attend Working Group meetings.

Officers: The MAFWA Executive Committee shall appoint a Chair each year. The Chair shall be an employee of a member state agency. The Chair and his/her member agency shall provide clerical support needed for conducting committee business and shall maintain a file of all minutes of committee meetings, correspondence and other items as necessary. The Chair's responsibility shall include, but not be limited to, organizing a minimum of one MAFWA CCC meeting per year, maintaining committee files, preparing necessary correspondence and preparing a report of all CCC activities for submission to the MAFWA Executive Committee. The MAFWA Executive Committee shall appoint a Vice-Chair. The duties of the Vice-Chair

will be to assist the Chair as required, assume the duties of the Chair in the event that the Chair is unable to perform those duties, and to succeed the chair when her/his term is over.

Sub-Committees: Ad-hoc Sub-Committees may be appointed by the Chair to investigate and report on specific issues. Sub-Committees will be appointed by the Chair upon review of requests from members of the Executive Committee for specific Committee action.

Meetings: The MAFWA CCC will meet at least once per year. The meeting may be held in any member state or in conjunction with other regional or national meetings that are timely or to reduce travel costs, or be conducted by conference call or webinar. The schedule and duration of each meeting will be determined by the Chair after consultation with other members of the Working Group. Notice of meeting dates and locations will be made available to members far enough in advance to enable them to secure out-of-state travel authorization for attendance.

Meeting Agenda: The program will be organized to permit adequate time for discussion of agenda items. Each Working Group meeting should include a short (10-minute) report from each state on the status of climate change-related projects in that state. Other topics on the agenda will reflect current issues related to the relationship between climate change, fish and wildlife, and habitat, as well as progress toward meeting the objectives of the Working Group. The Chair may request special reports from states and individuals on current topics. State and special reports will also be submitted in written format to facilitate sharing them with agency directors, maintenance of proper files and provision of reports to other appropriate persons. Guest speakers may be invited to Working Group meetings to make presentations on topics of interest. Short field trips may be arranged in conjunction with the meetings.

Attendance: To enhance an atmosphere of participation and exchange of ideas, attendance from all member states and provinces is strongly encouraged.

Business Meeting: A formal MAFWA CCC business meeting will be held in conjunction with any Working Group meeting. The business meeting will discuss and determine specific recommendations to the MAFWA Executive Committee. Recommendations to the Executive Committee must represent the majority view of member states/provinces. Each member state with a representative in attendance will be allowed one vote. Invited agencies, private citizens, NGOs and others in attendance are not eligible to vote.

Report: Following any MAFWA CCC meeting, the Chair will prepare a report for the Executive Committee of the MAFWA. The Chair will also send a copy of the report to all members of the Working Group. MAFWA CCC members should brief their own administration immediately following the Working Group meeting. The report shall contain a summary of the information presented at the Working Group meeting, items covered in the business meeting, any recommendations from the Working Group, appropriate handouts obtained at the meeting and names and address of all attendees. This report shall be submitted to the Executive Committee not less than 30 days before the MAFWA Directors Annual Meeting.

REGIONAL CLIMATE CHANGE RESEARCH PRIORITIES

Midwest Association of Fish and Wildlife Agencies

2015 – 2016

Impact of climate change on lake systems and fish habitat



Declining ice cover, warming waters, and proliferation of invasive species are rapidly changing aquatic habitat in the region. As a result, fish communities are changing. Cold water species, like cisco and lake trout, are in decline; warm water species, like smallmouth bass and largemouth bass, are now dominant species in many lake systems. What does this mean for the future of fishing in the Midwest?

Impact of rising stream temperature, altered flow, connectivity, and interspecific interactions on macro-invertebrates, including mussels



Stream temperatures are exceeding the physiological thresholds of some organisms. Changing flows, including extreme high and low flows, is reducing survival and reproduction in numerous species. Poor connectivity, due to dams, culverts and other human structures, reduce the resilience of threatened and endangered species to these changes. How can we best manage sensitive invertebrate populations in these systems?

Response of deer, moose, and elk to the direct/indirect impacts of climate change



Winters in the Midwest are milder. Some species, like white-tailed deer, will be favored by warmer nights and decreased snow cover. For other species, like moose, warmer conditions will challenge survival and persistence in the Midwest. How do we adjust management to address changing big game populations and harvest dynamics?

Habitat restoration outcomes under extreme weather events and climate change



The protection and management of large landscapes is an important strategy to buffer fish and wildlife from changing environmental conditions. States invest heavily in the restoration of lands, converting marginal lands to prime habitat. However, a longer growing season, floods, and drought reduce the viability of some restorations. How can we increase the long-term success of habitat restorations?

The MAFWA Climate Change Technical Committee aggregated and ranked issues identified by member states. For questions or more information, please contact Olivia LeDee, Minnesota Department of Natural Resources (olivia.ledee@state.mn.us).