Michigan's Wildlife Action Plan

Summary of Michigan's Wildlife Conservation and Climate Trends: Implementation of the Wildlife Action Plan Workshop 2009

Agenda

Welcome and Opening Remarks

Andy Bachsbaum, Regional Executive Director for National Wildlife Federation

Rebecca Humperies, Director of Michigan's Department of Natural Resources

Plenary Session

Christopher Hoving, Michigan Department of Natural Resources

Kimberly Hall, The Nature Conservancy

Amy Beyer, Conservation Resource Alliance

The Michigan State Wildlife Action Plan

Amy Derosier, Michigan Department of Natural Resources

Susan Tangora, Michigan Department of Natural Resources

Lunch Speaker

Kali Fox, Regional Manager for U.S. Senator Debbie Stabenow

Funding for Natural Resouces Adaption in Climate Change Legislation

Derek Brockbank, National Wildlife Federation

Revisiting the Michigan Wildlife Action Plan Working Sessions

A workshop on Michigan's wildlife conservation and climate trends was held at the Kellogg Center on Michigan State University's campus on March 12, 2009 from 9:00 am to 4:30 pm. It was hosted by National Wildlife Federation, Michigan United Conservation Clubs, and the Michigan Department of Natural Resources (MDNR). Funding was provided by the Doris Duke Charitable Foundation. Fifty participants, representing many conservation organizations including state, federal, and tribal agencies, academic institutions, and non-profit organizations, attended. See agenda in the gray box to the left.

This Wildlife Action Plan workshop set the stage to address the threat of climate change to Michigan's wildlife. Additionally, the workshop provided an opportunity to discuss how the Wildlife Action Plan can be revised to be more useful to Michigan's conservation partners.

Welcome and opening remarks

Andy Buchsbaum, the Great Lakes Regional Executive Director for National Wildlife Federation, provided opening remarks on why climate change is an important issue for Michigan and the Wildlife Action Plan. He then introduced the Director of the Michigan Department of Natural Resources, Rebecca Humpheries.

Director Humpheries welcomed everyone to the workshop and emphasized that climate change threatens Michigan's working landscapes, its water resources, and wildlife.

Plenary Session

There were three speakers during the Plenary Session.

Christopher Hoving, Endangered Species Coordinator for the MDNR, presented predictions of climate change and discussed how they apply specifically to Michigan's wildlife resources. We will be creating a fact sheet from his talk to help all of Michigan's conservation partners understand what this threat means to Michigan's wildlife. Watch the Wildlife Action Plan website for this: www.michigan.gov/dnrwildlifeactionplan.

Kimberly Hall, Great Lakes Climate Change Ecologist for The Nature Conservancy, presented a talk titled *Vulnerability and adaptation to climate change* in which she outlined three main areas of action:

1) becoming climate change pro-active,
2) identifying highly vulnerable species and systems, and
3) dealing with uncertainty (hedging bets).

Key elements to address climate change in revisions to the WAP include: working with partners to bring together data on expected changes in climate, species/system sensitivities so that vulnerabilities can be ranked, and linking expected changes in climate and species vulnerabilities to adaptation strategies.

Effective adaptation is challenging. Specific climate impacts and species/system responses are often uncertain. Until specific impacts and responses are better known, the best adaptation strategies are those that reduce the impacts of other stressors and also provide benefits to human societies (i.e., ecosystems services). In the near term, these win-win situations should receive highest priority. We need to move forward with our "best guesses" now so that our actions can help species adapt.

Amy Beyer, Director of Conservation Resource Alliance, presented a talk entitled *Wild Link – Securing healthy habitat corridors for the future*. Private and government partners are working preemptively to restore and protect large scale habitat corridors in the rapidly developing region of northern Michigan to combat the effects of fragmentation and prepare for climate change. The innovative approach engages private landowners in the most critical

ecological corridors to voluntarily manage and restore habitats on their lands. Activities range from wetland restoration to forest management, in-stream habitat improvement, and permanent land protection. The framework is recognized as a national model for highly effective large-scale habitat improvement.

Michigan's Wildlife Action Plan and successful implementation projects

Amy Derosier, Michigan's Wildlife Action Plan Coordinator for the MDNR, gave a brief overview and update of the WAP. Together, the state's Wildlife Action Plans present a national agenda for preventing wildlife from becoming endangered. Michigan's current plan is a compendium of information for anyone to use. Looking forward, there are five main themes to focus efforts:

1) working more collaboratively,
2) narrowing our scope of conservation priorities,
3) making WAP information more accessible and creating an action-oriented 5 year plan,
4) monitoring success of the WAP, and
5) better integrating the threat of climate change in the WAP.

Susan Tangora, Landowner Incentive Program Coordinator for the MDNR, presented a talk entitled *Wildlife Action Plan Implementation: Private Lands and Invasive Species*. Private lands play a pivotal role in meeting Michigan's wildlife conservation strategies of protecting statewide wildlife diversity. Sue discussed three private lands programs that help species of greatest conservation need: The USDA Farm Bill programs, the DNR Landowner Incentive Program, and the Michigan Grassland Bird Partnership. These public/private partnerships, which focus on implementing best management practices for conservation of wildlife, are a statewide priority of the WAP. Invasive species is also considered a top statewide threat. Discussion also touched on the Invasive Species Strategy completed for the DNR Wildlife Division by Michigan Natural Features Inventory. This strategy calls for prioritization of invasive species work and developing public/private partnerships to reach common goals.

There was also some discussion about the Wildlife Action Plan revision and implementation efforts of some of Michigan's conservation partners. This was an open forum for people to share efforts and ideas.

Update from U.S. Senator Stabenow's office

During lunch, Kali Fox, the Regional Manager for U.S. Senator Debbie Stabenow, gave a brief update on the Senator's activities in relation to funding for wildlife conservation and climate change. Our Senator has been an advocate for wildlife and has been active in fighting for funding. She has co-sponsored the *Teaming with Wildlife Act* which would bring more stable funding to the states for the conservation of wildlife and habitats through the Wildlife Action Plans. This important Act was introduced in mid-March. Please let her know that you appreciate her efforts! For more information on the Act go to: www.teaming.com.

Funding for natural resources adaptation in climate change legislation

Derek Brockbank, Conservation Funding Campaign Manager for National Wildlife Federation, discussed potential funding from "cap and trade" legislation, which could be directed toward the threat of climate change to wildlife and their habitats. This year is the year for climate legislation. Both the House and the Senate are considering comprehensive climate legislation; NOW is the time to talk to members of Congress to make sure they not only support dedicated funding for natural resources from the revenues of a cap and trade auction, but are actively asking for dedicated funding. Almost all previous climate bills have included a significant level of funding for natural resources (Climate Security Act had an average of $7 billion per year total, between $36-163 million would have come to Michigan). However, this is in real jeopardy. Congressman Dingell, as well as Senators Stabenow and Levin, and Representative Stupak will be important to make sure this funding is included in climate legislation.

Revisiting Michigan's Wildlife Action Plan

Participants discussed three topics during two working sessions: 1) the management response to adaptation, 2) shaping state and/or federal policies to fund adaptation strategies, and 3) implementing and/or revising of the current Wildlife Action Plan. Below summarizes those efforts.

The management response to adaptation
This discussion was framed around one desired recommendation:

1) Provide an approach for prioritizing management and conservation efforts for the Wildlife Action Plan based on the threat of climate change.

Do managers look to global or regional climate models for guidance on decision-making in a changing climate? Should they? How comfortable they are with the results? The group felt that because the output of most climate models are averages, calculated from a large range of potential results, there is too much uncertainty to make decisions using a single climate model. Participants look at multiple predictions, which can be very time-consuming and confusing. Another issue of concern was that broad-scale models do not handle the Great Lakes region well. The participants agreed that the aid and expertise of university professionals, scientists and other managers will be useful to help determine what climate model is most appropriate. Regarding the reliability of non-climate models, participants said that fragmentation and invasive species models are the two best examples. In these cases, modeling helps identify expected worsening conditions.

Before determining recommendations for the outcome, participants first agreed upon an approach that they considered would not be useful in a changing climate: buffer zones or prioritizing by corridors. Because climate change will draw new, elastic geographical boundaries based on different temperature and precipitation amounts, we should develop an approach that plans around the species rather than the region. One participant used the example of an earlier presentation in which the speaker claimed that the present geography could potentially "migrate" 250 miles in 100 years. This is a rate of 2.5 miles/year, which is very quick for some species. A buffer zone simply won't be comprehensive enough because climate change will eventually destroy the current zone. Therefore the group concluded that we should plan for "moving targets."

There were three main themes for the recommended approach that resulted from the discussions: to consider evolutionary or genetic heritage, to outline research needs, and to decide where to put our efforts in regards to urgent-risk species.

First, participants agreed that evolutionary or genetic heritage must be considered in order to prioritize conservation actions. When considering the evolutionary patterns for species, some may be fading out regardless of climate change, and we need to decide whether we should let them go and focus our efforts on saving other key species. One example is the protection of the Mitchell's satyr butterfly. In this case there are other types of satyrine butterflies; they have a strong evolutionary heritage. Perhaps species that do not have as much evolutionary heritage should be protected first. Because of their greater genetic diversity, populations at the edge of the range should be prioritized to decrease the chances for genetic bottlenecks.

Second, participants felt that in order to move forward it is important to outline research needs:

- course filter biodiversity conservation assessments,
- vulnerability assessments,
- connectivity planning,
- identifying invasives vs. natives,
- information and education, and
- translocation
- microbes, and
- other species tied to ecological processes in a less obvious way.

Third, participants agreed that we should decide where to put our efforts in regards to urgent-risk species. One participant said that currently we put money where we know it's going to do the most good, keeping the species from going extinct; therefore, some species do not get addressed because of the potential to waste money. However, under the additional stresses of climate change we might need to consider a means to addressing those other species. There was much discussion on whether or not we should re-consider "triaging taxa." Triaging unfortunately has the potential to be very costly. Policy-makers should consider the development of an emergency fund for these types of cases.

Participants also discussed some ways to facilitate the outlined approach for managers. These include securing a

dedicated funding by linking natural resources adaptation back to humans and also linking it back to the preservation of ecosystem services. Also, we will have to better communicate local stories to educate and gain further support for doing adaptation work.

Shaping state and/or federal policies to fund adaptation strategies
This discussion was framed around three desired recommendations:

1) Who should be the lead on climate change threat to wildlife and ecosystems in Michigan;
2) How to organize conservation partners and stakeholder groups around this effort; and
3) How to move forward if climate change funding for wildlife is passed.

In general, better coordination among agencies, NGOs, and other conservation groups was identified as important. Communication is necessary to avoid duplication of efforts. To avoid lobbying rules and potential conflict of interest, the groups felt that an NGO should "take the lead" on climate issues in Michigan relative to advocating. In the evaluations for the workshop, many types of organizations were identified as needed to take the lead on climate change issues in Michigan (see Figure 3).

For recommendation 2, the groups suggested: broadening the coalition (faith-based groups, labor, business, urban community groups, university extensions); have scientists lead the effort (however most do not advocate); have a strong educational component; sharing between groups for increased transparency; have a website within the DNR that pulls climate information from all state agencies into one place; create a central database for climate science.

For recommendation 3, the discussion focused on the amount of "match" that MI would need to provide, and how to locate such funds. Ideas included: the proposed license plate fee increase; land donations/easements as match from land trusts; in-kind contributions; increased sales tax for dedicated funding (MO, MN, AR models); increase fish and game license fees; natural resources trust fund. Both groups stressed that MI needs to have a plan in place and projects lined up in advance of available federal dollars.

Implementation and/or revision of the current Wildlife Action Plan.
This discussion was framed around two main desired outcomes or products:

1) Identify the top information needs of partners and how they would like to access it; and
2) Provide recommendations on how to better connect and partner with Michigan's conservation partners through the Wildlife Action Plan.

For outcome 1, there were three main themes that came out in the discussions for how to make the current WAP more accessible and useful to Michigan's conservation partners: implementation plan, interactive website, and marketing.

Workshop participants want to see an implementation plan for the WAP with specific goals and objectives. There is also interest in seeing more specific priorities tied to an implementation plan for landscape features, species, policy issues, and knowledge gaps. Participants also want to see spatial priorities and better ties with other conservation plans and efforts. It was suggested that the CARL database could help focus efforts and priorities for the WAP.

Participants want a more interactive and accessible website and had a variety of suggestions. An online database that could be searched by fields of interest (species, landscape features, natural communities, or spatial locations) as well as searchable maps was suggested. There was also discussion of having spatial maps of threats available. One participant suggested a website that allowed the user to essentially *choose their own adventure* (like the books) to better navigate people through the WAP on the web. Other ways discussed to help users better navigate the website and document were to provide examples of how some groups search and use the WAP, tools for use, and a web tutorial on how to use the WAP. There was one suggestion for color coding to better highlight information (exp., different colors for different SGCN status). Participants also wanted to see links to other data sources and efforts, such as MNFI's website and abstracts, museum databases, and the breeding bird atlas. Another suggestion to better link efforts was to have an online database for gathering information about current research and other efforts. Participants also want to see tools and resources for local groups, private land owners, and teachers specifically.

There was a general concern to ensure that the website is also useful to our partners that still have dial-up internet access.

Marketing the WAP was also a general theme of discussion. We needed to better reach out to the public and folks working at the local level. Some suggested ways for doing this included: a companion WAP that focused on introducing it to the general public; teacher resources; and efforts focused on kids. Another suggestion was to send a letter or fact sheet to *conserve wildlife habitat* license plate holders to tell them about the WAP and how their money is helping wildlife and their habitats in Michigan.

For outcome 2, better connecting Michigan's partners through the WAP, discussions were straight forward and resulted in three main suggestions: 1) have an annual biodiversity conference to share successes, failures, and priorities; 2) have regional meetings to update and report on partner efforts; and 3) link with The Stewardship Network, especially with their restoration efforts database.

Evaluation of Workshop

Overall, the evaluations for the workshop were positive. Most participants attended the workshop to network (Figure 1). The discussion by partners on implementation projects received mixed reviews. The time slot was too tight and the format was not very effective. Nearly all participants thought that climate change was a serious threat to Michigan's wildlife (24 out of 25 respondents). We asked participants how confident they were that the WAP could be used to address species and habitat adaptation to climate change and results were mixed (Figure 2); one third of participants were not confident. And lastly, the MDNR and NGO's were the two types of organizations that were ranked the highest on who should take the lead in addressing climate change in Michigan (Figure 3).

Next Steps

As we continue to engage partners, we will strive to provide more opportunities for people and organizations to network around the Wildlife Action Plan. And we will use the evaluations from this workshop to help make the next one even more effective. As we move forward, some serious thought and discussions need to be directed towards revising the WAP to address the threat of climate change and adaptation. We will be asking for guidance on how to do this in the future – so stay tuned.

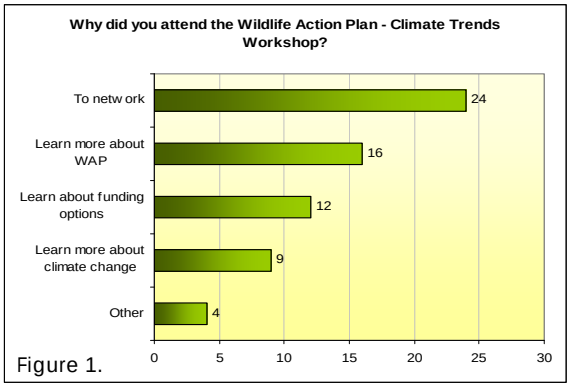

Figure 1.

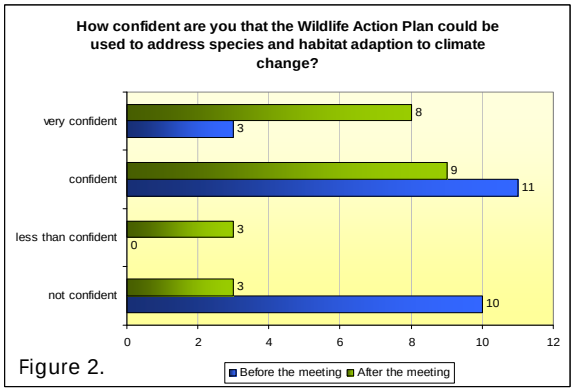

Figure 2.

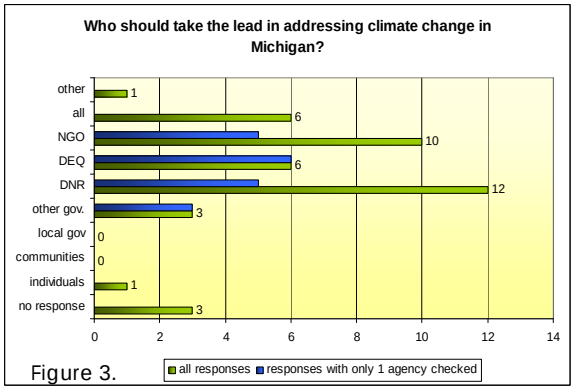

Figure 3.

For more information contact:

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Pictures courtesy of Dave Kenyon (linx, Kirtland's warbler), Rob Criswell (eastern sand darter).