Michigan Anishinaabeg maintain important relationships with, and knowledges of, Great Lakes forests, waters, plants, animals, and other non-human beings. Tribal natural resource management and climate adaptation can be guided by Anishinaabe knowledges and perspectives, through formal and informal outreach and engagement with tribal member-citizens. Such engagement requires building and maintaining long-term relationships, rooted in respect and trust. The knowledges and perspectives shared by tribal members should be respected and protected beyond the lifecycle of any individual project.

This document includes ideas and prompts for engaging tribal member-citizens in forest adaptation. The following methods were developed by natural resource staff from four Michigan Tribes, inter-tribal consortium, and partners during a Forest Understory Adaptation Project. Staff from each Tribe pursued unique combinations of outreach and engagement methods, all focused on relationship-building for long-term partnerships in tribal natural resource management and climate adaptation.

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Working with tribal member-citizens in a good way

The seven grandfather teachings can help you approach tribal member-citizens in a good way. Approach members with honesty and bravery (be clear about your intentions and the project purpose), wisdom and respect (actively value and safeguard their knowledge, time, and perspectives), humility and love (actively listen with an open mind and heart), and make the commitment to work with them and take care of what they share for the long-term.

It is often appropriate to offer asemaa (tobacco) or kinnickinnick to tribal members when asking for their time and guidance. Asemaa is both a gift and a spiritual contract, which acknowledges the wisdom and time being requested and may facilitate the assistance of manidoog (spirits) in fulfilling the request. Contact tribal elders, cultural leaders, and staff for guidance on proper asemaa relations. It is also appropriate to offer a small gift and food or drinks during a conversation, meeting, or interview, in gratitude for the time and knowledge shared.

When documenting outreach, try to transcribe member thoughts and ideas verbatim, without interpretation. It is appropriate for tribal members to maintain ownership and authority over their ideas shared during engagement, including ownership of conversation or interview transcripts, throughout and beyond any individual project lifecycle. It is essential to follow-up after conversations and allow members to review and revise the notes/transcripts or main ideas, either verbally or in written form. It is also important to follow-up with members to share how their ideas and guidance impacted the Tribe’s efforts and allow the opportunity for ongoing feedback or guidance.

Tribal natural resource managers have unique opportunities to engage Western and Anishinaabe ways in tribal natural resource management.

Outreach for Project Planning

Initial Outreach Prompts

1. We are working on a project to learn about local forest plants and how they might respond to changes in climate. We’ve already seen some changes in temperatures, snow, storms, and the seasons – and these changes might impact forest plants...

2. Through this project, we want to understand how certain plants might do in the future. We also want to find ways to protect plants that might not be as plentiful or healthy in the future...

3. Your experiences with these forests can help guide this project. I’d appreciate it if we could talk sometime about local forest plants... [If appropriate, offer asemaa and plan a visit or interview]
General Questions for Starting Conversations

1. Have you noticed any changes in forest plants? More or less of any plants or groups of plants?
2. Are there any particular plants that the Tribe should be looking at? e.g. Learning about, protecting, and/or increasing harvesting opportunities?
3. Can you think of any plants that are harder to find now than they were in the past?

Community Gathering Focused Conversation

Tribal community gatherings are a way to engage tribal member-citizens in tribal natural resource management and climate adaptation. Member-citizen attendance at community gatherings may be promoted by: extending personal invitations with asemaa, advertising with social media, coordinating with multiple tribal programs (e.g. elders, cultural, youth), hosting gatherings in community spaces and at family-friendly times, and serving a meal.

A focused conversation can engage community gathering attendees in a group discussion, which allows collective sharing of experiences, memories, and ideas, as well as, consensus-building. After giving a brief overview of the project, a focused conversation may include the following questions:

1. Your experiences with local forests can help guide this project. I’m going to ask the group some questions and invite everyone to share their thoughts in a group discussion. If you don’t feel comfortable talking in the group, I would be happy to talk with you later on.
2. After hearing about this project, what stands out to you?
3. When thinking about changes in the woods, what plants or places come to mind? And why?
4. When you go out into the woods, to gather or for any reason, what changes have you noticed?
   • Kinds of plants growing, where or how they grow? Any plants that are harder to find now than they were in the past?
   • How about [specific plant]? Have you noticed any changes in [specific plant]?
5. Why do you think these changes are happening?
6. What can we do to help the plants and places that we’ve talked about today?
7. What are the next steps we need to take to move this project forward here in a good way?
8. Miigwech to everyone here for sharing your thoughts and listening to each other. We’ll type up the notes from today’s conversation and share them with you, to make sure we understand your thoughts and ideas [specify how and when the notes will be shared]. If you’d be willing to talk more about this project and forest plants, please let us know and we can set up a time to meet.
Interview Questions

Adapted from GLIFWC TEK Interview Questions

These questions are best asked in a conversational format, with examples shared as needed.

Informed Consent Example: Thank you for talking with me today. I'm here to learn about our forests and any changes that might be happening there. I have a few questions here that are meant to help Tribe's Natural Resource Program learn more about changes in the woods. You are free to choose not to answer any of these questions – and you don't have to share any information that you feel uncomfortable sharing. What you do share will help guide the Tribe's work. [Information specific to project/uses]. This conversation will only take 20-30 minutes, unless you'd like to talk longer.

Is it ok to record our conversation? [If yes, share what will be done with the recording. Will you transcribe it and then erase it? Send it to the interviewee? Keep it within the Department? If no, share what will be done with the notes. Will you type and deliver or email them to interviewee for their review? Will you meet with them to review the notes and make changes? Where will the notes be stored and for how long? Will they be used to guide other projects?]

Before we begin, do you have any questions or concerns?

1. When you go out in the woods, to gather or any reason, have you noticed any changes over time?
   Changes in the woods, kinds and numbers of trees or plants, the places that you'd expect to find them, the time of year that they flower/fruits ripen, or anything that has disappeared/appeared
   • Are there any particular changes that concern you? If so, why?
   • Is there anything that we can learn from these changes?

2. When you go out gathering, are there important dates or other things that you look for, to know when it's time to start or stop gathering?
   Spring peepers, thunderstorms, etc.

3. When you think back about stories your elders told you, or when you were young, do you notice any changes in gathering from the forests then compared with now?
   Change in the kinds of plants gathered, number of plants/leaves/fruits, size or health; gathering ways, who does the gathering; how gathered items are handled

4. Are there any particular plants that the Tribe should be looking at?
   Learning about, protecting, and/or increasing harvesting opportunities

5. Can you share any Anishinaabemowin or stories about the plants or other forest beings of this area?

6. Are there any other community members that you would suggest we talk with?

Miigwech for talking with me today. I'll type these notes and share them with you, to make sure they reflect your thoughts. If there is any information that you've shared today, that you decide you don't want to be used in any way, you can let me know and it will be respected. [Make plans for transcript review and repeat long-term plans for use of notes by Tribe]
Tribal Community Adaptation Planning Workshops

Developed by the Inter-Tribal Council of Michigan and Northern Institute of Applied Climate Science

Tribal community workshops are a way to engage community members and their knowledges in vulnerability assessment and climate adaptation planning. Below are resources for conducting workshops for forest understory-focused adaptation planning.

Purpose and Aim of Workshop

**Purpose:** A gathering of tribal staff and community members to talk about selected forest plants and communities, how they might respond to climate-driven change, and ways to support them for future generations.

**Aim:** To share our stories and experience with these plants, better understand how they may respond to climate-driven change, and find ways to support them for future generations.

**Deliverables:** A documented discussion on the habitat needs of selected plants, how they are doing now, and how they might respond to future change in a *specific geographic area*; a determination of relative risk (VH, H, Mod, Low) and confidence (High, Medium, Low) for each plant; and worksheets documenting how risk and confidence was determined by each participant.

Workshop Invitees

- Interested tribal members; previous discussion, gathering, and interview participants
- Tribal leaders
- Tribal staff: natural resources, environmental, cultural, education, planning, health, traditional medicine, etc.
- Tribal elders, youth (e.g. tribal youth council), and families

Workshop Logistics

It is beneficial to host a workshop at a time and place that works best for the invitees. If tribal program staff and retired elders are the invitees, a daytime workshop may work best. If tribal families and youth are invited, a weekend or evening workshop may work best. In either case, it may be beneficial to host a workshop:

- At a community center with access to a kitchen and to provide meals for attendees
- During spring, summer, or fall, and to plan a walk in the woods or community harvest
  - *This will allow attendees to focus on their personal relationships with forest plants and get comfortable sharing stories about their experiences with forest plants/places*
- During winter, when certain stories about forest plants and other beings can be told
Example Tribal Community Workshop Agenda

8:30am  Breakfast
9am    Welcome and Introductions
       Project overview
       Workshop purpose and aims
9:30am  Field Trip
       Forest plant identification and discussion
11:30pm Return/Recap
12:00pm Lunch
12:30pm Community Assessment of Future Change in Focal Plants
       Review handouts
       Framing future change
       Group assessment of future change
       Unanswered questions
2:30pm  Adaptation Strategies
       What can we do to help these plants?
2:45pm  Next steps
       What next steps can we take to move this project forward here in a good way?
3:00pm  Closing

Workshop Facilitator’s Notes

Facilitator notes for a tribal community adaptation planning project focused on forest plants are provided below. Section headings correspond to the Example Tribal Community Workshop Agenda, above.

Project Overview

The purpose of this workshop is to share our stories and experience with these plants, better understand how they might respond to climate-driven change, and to determine how this community thinks they will do in the future, here in geographic area.

In order to do this as a group, we’ll consider each plant, where and how they grow, any changes they might be going through now, and how future changes might impact them. It’s a big task and we
asked all of you to participate because you have important experiences and knowledges about these plants and/or the forests that they live in.

At the end of the workshop, we’ll have created an assessment of how each plant might do in the future and identified some ways that the Tribe can support each plant. After the workshop, you’ll be able to review this assessment, which we will use to guide the Tribe’s efforts to support these plants and their habitats.

A lot of climate-related work has focused on trees - how trees might respond to future changes. Not many people are looking at and working with understory plants, which provide us with foods, medicines, and are important in healthy forests. We want to support these plants now and in the future, so that future generations can continue to know and use them for min-bimaadiziwin. This workshop is an important step.

Climate-driven Change: Here in geographic area, we’ve seen changes in summer and winter temperatures, snowfall, and rain - and we expect to see more changes. These changes are different in each area of the forest - and have different impacts on each plant. That’s why your perspective is so important. Your experiences and observations - what you’ve seen in the forests here - is the best gauge for understanding and planning for future change.

Focal Plants: Today, we’re going to focus on xxxx plants. We’re focusing on these because they stood out in Tribal Natural Resource/Planning Department outreach with tribal members - and because we have limited time together. All forest plants are important, but we have to start somewhere!

Group Introductions: Let’s do introductions now - please share your name and one experience with any of our focal plants.

**Field Trip**

The discussion can be tailored to the forest community and can start with informal sharing of plant identification, including Anishinaabemowin, English, and Latin names. A field trip to a site with species may include the following discussion prompts:

1. Has anyone been to this forest before?
2. What are your experiences with species? When did you first learn about them?
3. What kinds of places do species grow in? Do they need anything special to grow? Are they grouped with any particular plants or animals?
4. What do healthy species look like? What does healthy species habitat/forest look like? How do you know if it is not healthy?
5. Have you noticed changes in the places that species grow? Any changes in how they grow? Why do you think these changes are happening?
6. Are species harder to find now than they were in the past? Why do you think these changes are happening?
7. What about other species?
Field Trip Recap

We’ve visited a forest with species, talked about species, how and where they grow, and how they might be impacted by climate. Let’s bring those discussions together now so that they can guide our work this afternoon. We’ll start with a question to the group:

* After our field trip what stands out to you about species and the forests that they grow in?

Community Assessment of Future Change

Review Handouts: In this project, we are looking one or two generations forward - to the year 2050. We have a draft vulnerability rating of EXTREMELY HIGH for how LEEKS might be in the year 2050 - which means that they, or the places that they grow, may DECREASE or DISAPPEAR here by 2050. [See Inter-Tribal Council of Michigan Project Handouts: http://www.itcmi.org/environmental-services]

We came up with that draft vulnerability rating by using a tool called the Climate Change Vulnerability Index, where we answered a bunch of questions about the plant and what they need to grow well. The tool focuses on three things: how much change the plant will experience, how sensitive the plant is to that change, and the plant's ability to respond to or withstand that change.

In this tool, the ratings (Low - Extremely High) address future decreases in how many plants there will be and how much area they can grow in. A plant with Low vulnerability may not change much, or they may grow much better in the future and we’ll see more of them growing in more places.

This is a good start, however, the tool and these ratings don’t consider important things that might matter to the Tribe - like your ability to go out and harvest enough of that plant for your family. Today, we want to do a different assessment, that is based on your experiences, ideas, and needs.

Framing future change: Today, we want to talk about future changes in each of these plants, including changes in their:

* Health: if they become sick, start dying, produce less fruit, or other changes
* Habitat: if they can’t grow in as many places in this area or they can’t grow with the same plants as they used to
* Community access: if you can’t access or harvest them due to -
  * Timing: too hot in summer to gather; mismatch with giizis/traditional harvest time
  * Geography: must travel further to find or harvest them; they are hard to get to
  * Authority: they are only available on private or other lands with regulations that limit your ability to find and gather

How does this sound? Is there anything else that we should consider?

Group assessment of future change: Now that we’ve decided what kind of future changes to consider, we can start an assessment. This will probably take longer at first and by the next plant or two, it’ll be faster. We’ll use the worksheets to record our ideas as we go.

First, please take a few minutes to write down responses to the first four questions on the worksheet for species. [See Species Worksheet, page 9-10]
Next, find a partner and share your ideas. Add any new ideas to your worksheets. You'll have 8 minutes to talk.

Now, let's go through each question together - what is one idea that stood out in your conversation about Question 1, 2, etc.:

Is there anything else that should be added to this list? Changes in when they emerge in spring - other plants - invasive plants/earthworms - pollinators - animals move seeds - forest structure - Are there special local conditions that might help species survive better in some places?

With these ideas in mind, please use the graphs on your worksheets to rate how you think species might do in the future. Remember to consider each aspect of future change: health, habitat, community, access, harvest, etc. For example.. Use your best guess and circle your level of confidence in your answer.

Now, using these stickers, let's put all of our ratings on one big graph here. You should put 1 sticker on this graph. [Use large colored graph from Species Worksheet page 2]

Here's what we found... How does this sit with you? How confident are you in these ratings?

Let's take this one step further. With this rating in mind, and the reasons for it, let's think about our options for the future. What actions can the Tribe take to support and enhance species - and tribal access to them - into the future?

[Repeat Community Assessment of Future Change for additional species]

**Adaptation Strategies**

We've identified some ways that the Tribe can support species - and member access to them - in the future. What actions can the Tribes take to support species:

* On tribal, federal, state, private, land trust lands?
* Tribal community access to them?
* How can the Tribes work together to support these plants across the state or region?

**Next Steps**

What next steps can we take to move this project forward here in a good way?

**Closing**

Miigwech for sharing your knowledge, experiences, guidance, and time with us today. We will pull together the notes and work we did today into a summary report and share it with you, for your review. If you'd like to talk through anything in the meantime, contact us by phone, email, or stop in for a visit.
Species Worksheet

1. Have you noticed any changes in how species grows?
   - Flowers at different time
   - Harvest at different time
   - Patches are larger or thicker
   - Patches are smaller or thinner
   - __________________________

   Why do you think these changes are happening?

2. Have you noticed any changes in the places where species grows?
   - Yes
   - No
   - Maybe

   What changes have you noticed?

3. How easy is it to find and gather species in geographic area now?
   - Very easy
   - Easy
   - Medium
   - Difficult

   What makes it easier or harder?

4. Do you know of any ways to increase species populations or health?
   - Yes
   - No
   - Maybe

   If so, please share:
Assessment of Future Change

5. Please rate how you think *species* will do in the future on the graph below with an ‘X.’

![Graph showing species change categories]

- **Increase**
  - Increase in number of plants, habitat for these plants, and/or tribal community access to these plants by the year 2050

- **Small Decrease**
  - No major decrease in number of plants, habitat for these plants, and/or tribal community access to these plants by the year 2050

- **Moderate Decrease**
  - Number of plants, habitat for these plants, and/or tribal community access to these plants may decrease by the year 2050

- **Major Decrease**
  - Number of plants, habitat for these plants, and/or tribal community access to these plants may decrease greatly by the year 2050

- **Extreme Decrease**
  - Number of plants, habitat for these plants, and/or tribal community access to these plants may decrease or disappear by the year 2050

6. Why did you select this rating?

Please share:

7. How confident are you in the rating above?

- [ ] High
- [ ] Medium
- [ ] Low

Why?
Plant Identification Resources

Compiled by Michigan Natural Features Inventory and Inter-Tribal Council of Michigan

When talking with tribal members about forest plants, it is important to make sure you’re talking about the same plants. Overlap and confusion among English, latin, and Anishinaabemowin names can make it difficult to confirm the identification of specific plants.

Talking with tribal members in the field can allow you to identify plants together. If you can’t confidently identify a plant in the field, take pictures the plant and key parts that are critical for identification (i.e., leaf, flower, buds, bud scars, bark, branching pattern, fruits, seeds). The photos can later be used to key out the Latin name of the species.

If you can’t confirm identification of a plant and don’t have access to it (e.g. during an interview in the middle of winter) the following questions may be helpful:

- Where do you find this plant?
- What kinds of places do they grow in? What other plants grow with them?
- What is the soil or dirt like in the places they grow? Sandy? Clay? Thick with roots?
- Do they grow in wet or dry areas?
- Do they grow in standing water? If so, how deep?
- Can you draw or describe the leaf shape?
- Can you draw or describe the flower?
- What does the bark look like?
- What does the bark smell like?
- What does the plant smell like?
- What does the plant taste like?
- How many flowers does the plant have?
- Where on the plant are the flowers?
- Are the leaves opposite or do they alternate?
- Are the leaves compound or simple?
- What are the edges of the leaves like? Toothed or smooth?

Recommended online identification tool: http://michiganflora.net/
Recommended field guides:

- Newcomb's Wildflower Guide by Newcomb
- Michigan Trees by Barnes and Wagner
- Field Manual of Michigan Flora by Voss and Reznicek
- The Illustrated Companion to Gleason and Cronquist's Manual by Holmgren
Additional Resources


Working together to support native forest understory plants

The Inter-Tribal Council of Michigan, Bay Mills Indian Community, Lac Vieux Desert Band of Lake Superior Ojibwe, Pokagon Band of Potawatomi, Saginaw Chippewa Indian Tribe, Michigan Natural Features Inventory, and Northern Institute of Applied Climate Science worked together from 2017-2018 to understand and support forest understory plants across Michigan, based on Anishinaabe and Western scientific knowledges and ways.

For more information, contact the Inter-Tribal Council of Michigan or visit our website: www.itcmi.org.

This work was funded by a United States Bureau of Indian Affairs Tribal Climate Resilience Program grant to the Inter-Tribal Council of Michigan. The contents of this document do not necessarily reflect the views or the policies of the Bureau of Indian Affairs.