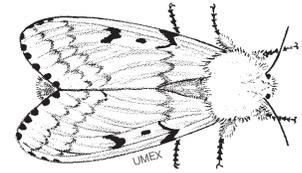


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The Gypsy Moth and Forest Management Issues: Public Response to a Proposed Gypsy Moth Management Program

By Jordan B. Petchenik and Elizabeth Ivers

Introduction

The gypsy moth, *Lymantria dispar*, is a non-native species that defoliates and weakens trees, particularly oaks, during periodic outbreaks that occur in June or July. The moth was first introduced into eastern North America in the 1860s (Wisconsin DNR 2002). Through natural migration and accidental movement by humans, the gypsy moth spread slowly westward. In 1971, it was first detected in Wisconsin; the moth is now firmly established in 32 counties in eastern Wisconsin and has been found in nearly every county in the state (Wisconsin DNR 2002).

In the next few years, biologists anticipate gypsy moth populations in southeast Wisconsin to increase to levels that will result in severe tree defoliation and tree mortality. A widespread outbreak of the gypsy moth could have a significant impact on the Southern Unit of the Kettle Moraine State Forest (SUKM), one of the largest tracts of forested land in southeast Wisconsin.

As an initial step in developing a plan to manage gypsy moth infestation in the SUKM, social scientists with the Wisconsin Department of Natural Resources (DNR) conducted a series of focus groups to assess public response to various gypsy moth management alternatives. The study also gathered information on how the public might respond to a new gypsy moth management plan. This report presents participant discussion of forest management issues related to the gypsy moth. Two additional reports (Petchenik and Ivers 2003a, b) present participant reactions to five gypsy moth control options, including concerns about spray notification, and participants' responses to questions about their tolerance for tree defoliation, tree mortality, and moth nuisance. More detailed information about the complete study and its findings can be found in Petchenik (2002).

Methods

We used focus groups to assess forest users' opinions about gypsy moth management. Researchers typically use this technique to generate insights and ideas. Unlike survey research, focus groups allow participants to listen and respond to one another, as well as to the moderator. Focus

groups also give participants a chance to think about and comment on their experiences and concerns. Where statistics are needed, researchers often use focus groups as a first step in developing a survey.

Staff sociologists from the Bureau of Integrated Science Services conducted five focus groups consisting of primary users of and residents within the SUKM (Table 1). Focus groups included a mix of men and women, with a total of 38 study participants.

Table 1. User groups interviewed, focus group locations, and number of participants.

User Groups Interviewed	Focus Group Location	Number of Participants
Mountain bikers	Madison	7
Day users	Madison	8
Horse riders	SUKM	8
Homeowners living near SUKM	SUKM	8
Campers	Milwaukee	7
Total		38

Focus group participants were asked to discuss a number of questions about gypsy moths and gypsy moth management. The focus group moderator guided the discussion through the following sequence of topics:

1. recent experiences with and attractions to the SUKM,
2. knowledge of and experience with gypsy moths,
3. tolerance for gypsy moth nuisance, tree defoliation, tree mortality,
4. preferred areas of the SUKM to be protected from gypsy moth damage,
5. effect a gypsy moth outbreak might have on future visits to the SUKM,
6. funding of gypsy moth suppression and its importance relative to other issues within the SUKM, and
7. preferred gypsy moth control method and concerns about aerial spraying.

Because participants in this study did not have extensive first-hand experience with gypsy moths, we showed them photographs and provided background information to help them better understand gypsy moth management issues. We audio-taped each focus group and based our analysis on a verbatim transcript of each session. Illustrative quotations from focus group participants are presented throughout this report in *italic text*.

Results and Discussion

Experience with the SUKM

When asked to describe what they liked best about the SUKM, participants spoke about the diversity of plant life, the closed canopy of the forest, and their appreciation for specific tree species. Many participants felt that the diversity of plant life was the most outstanding feature of the SUKM. Other participants focused specifically on the forested areas and emphasized the importance of a closed canopy. Some participants stated that oak trees are an important factor in their personal enjoyment of the forest. Others, however, did not consider oak trees to be essential or preferred the planted pine areas.

I think of the different trails, too, the different types of trees. There are some oak savannas and some little pine bogs and even the prairie.

I think one of the nice things about the Kettle Moraine forest versus, say, the Hayward forest, is the diversity. Up north it all seems the same.

I like the canopy on a hot day. But, when it's cool like today, it's nice to have the open area.

I've seen plenty of old oaks when I hike. Oaks are kind of like works of art by themselves and they are beautiful trees so they command your attention, particularly the older ones. There's some that I don't know how old they are, but I imagine they are at least 150 years old, perhaps

The oak forest is different because it's more open than a maple forest. It provides more open areas for wildlife; it's a more interesting woods to participate in. Yes, it would diminish the experience not to have the oaks.

The forest just kind of looks like Wisconsin to me. Don't spend much time thinking about the oaks.

The Need for a Gypsy Moth Management Plan

When participants were given background information on the impacts of a severe gypsy moth infestation, they expressed concern about the problem of caterpillars and frass in camping areas, tree defoliation, and tree mortality (see Petchenik and Ivers 2003b). All of the participants felt strongly that a plan needed to be in place to control the gypsy moths and protect the forest. Participants were unsure as to exactly what forest managers should do, but stressed that something “needs to be done.”

I guess I'd expect them to do something about it. I'd want them to take some action.

It strikes me as being a pretty easy decision. If you decide you want to keep the oaks, you spray the gypsy moths.

If there is a good option that doesn't throw everything out of balance then you should be proactive and eliminate the problem before it gets out of hand.

When it's upon you, that's when it becomes a big deal. The reason to go to the Kettle Moraine is the forest. I walk in the woods. I ride my bike in the woods. It's a high priority for me in my life.

Concerns about control methods. Although everyone in the discussion supported the general idea of a gypsy moth management plan, participants had many questions concerning the goals, impacts, and effectiveness of a management program (see Petchenik and Ivers 2003a).

So, when they spray, what are they trying to do?

Well, how effective are any of these [pesticides]? In fact, are these controls or are they a degree of control? If you take the worst one and sprayed, that would wipe the gypsy moth out?

How would spraying information be communicated? When, where?

Reasons for a Management Plan

Participants expressed many different reasons why they felt that gypsy moths need to be controlled. Many participants expressed concern that gypsy moths are a non-native species. Some participants were concerned that gypsy moth damage would diminish the beauty of the forest and lessen their enjoyment of the SUKM. Some were concerned about the economic effects of the gypsy moth infestation in the SUKM. Others felt that the SUKM should serve as a model for how the gypsy moth should be controlled in the region.

That's [gypsy moths] not part of nature; that's nature out of balance. They are not indigenous creatures. They're from Europe or wherever...

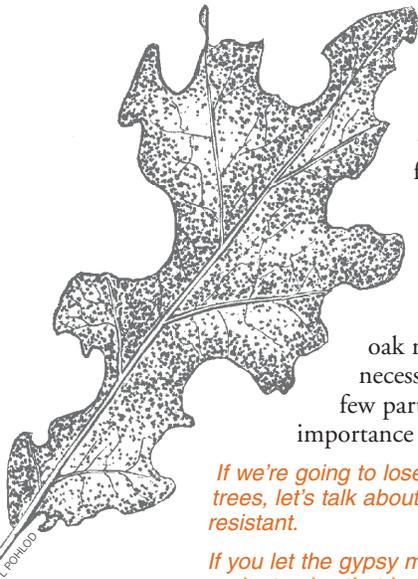
It's not native; it's an introduced species and it takes out trees. That affects birds and animals.

My argument would be we have public lands so people can go in and enjoy them and they are diminishing so quickly and people go to them largely to enjoy the trees and foliage. You want to see leaves in the summer and you want them to turn colors in the fall. I guess if you decide the thing is the pest and not natural, kill the damn thing!

Southeastern Wisconsin is an area where 60 or 70 percent of the population is from Madison, Milwaukee, and Sheboygan County, that area. The Kettle Moraine is what we have. I would prefer to see our little piece of paradise taken care of.

If people aren't going there and paying fees you don't have the money to run the forest. Lovers of the forest area can't ignore [the problem].

That's important because if the forest manager doesn't do anything it could have a trickle-down effect. Whatever course of action they choose for Kettle Moraine could have a big effect on what the other parks can do and want to do.



Maintaining the Oak Forest

When asked about the importance of preserving the native oak forest, many participants were unsure how to respond. Although a number of participants expressed appreciation for the oaks in the SUKM, they were confused about the concept of an oak regeneration program and the necessity of having a plan in place. A few participants did, however, stress the importance of maintaining a native forest.

If we're going to lose the oaks like we lost our elm trees, let's talk about reforestation with something that's resistant.

If you let the gypsy moths kill the oaks and you decide to replant oaks, that just seems like not a wise use of taxpayer money.

It's important to me that it's a native tree... [Transition to buckthorn]; that's not acceptable.

Areas for Protection

When asked about specific areas of the forest that should be targeted for protection from gypsy moth infestation, many participants suggested high use areas, but some felt that it was more important to target low use areas instead. Others were unable to prioritize areas of the forest and believed that the entire forest should be protected. A few participants were able to indicate specific areas to be protected.

Protect high use areas. Most participants who expressed an opinion felt that the areas that visitors use the most should be the highest priority for forest managers. Opinions, however, varied as to which high use areas should receive the greatest attention.

The obvious answer is areas that people see and use.

The parking lot areas; lots of people only go 20 or 30 yards from the parking lot for picnics.

I would be more concerned with the camping and the picnic areas [than around the trails].

We would be more concerned with anything along the trails.

More people use the swimming areas than camp because you have the weekend picnickers coming out. They are going to want that to be their priority.

Protect low use areas. In contrast, other participants felt that it was more important to prioritize the low use areas of the forest because of their rarity and natural beauty. A few participants specifically mentioned targeting oak trees.

As far as I'm concerned, the most beautiful areas are not the high use areas. I would not be willing to give that up, just because it's a low use area. That's not right.

Oak groves seem rather rare. You drive down the road and see spots that have survived deforestation and farm fields, but they seem fairly rare things especially in southern Wisconsin . . . All the more reason to protect them is my point.

Protect the entire forest. Many participants were unable to prioritize areas of the forest that should be targeted and felt, instead, that the entire property should be protected from gypsy moth infestation. Also, some participants were concerned that treatment of selected areas within the forest may not be effective or even possible.

Protect specific areas. When asked to consider forest budget constraints, a few participants named specific areas within the forest that they felt should be targeted for gypsy moth protection. These included "Kennedy Hill," "Ottawa Lake," "Scuppernong Trail," "Whitewater Lake," and "the Ice Age Trail."

Gypsy Moth Management versus Other Forest Issues

Many participants believed that gypsy moth control should be the forest managers' priority above all other issues. Other participants saw links between gypsy moth management and other environmental issues in the forest. Some participants felt that while gypsy moth management is important, there are other issues in the forest that are of greater priority.

The overall conservation of the forest is much more important than a couple of trails and their maintenance. Because that's the whole point, anyway, to have a nice secluded area that's away from the city for people to enjoy.

The invasive plants [have] a devastating effect on the forest . . . But I'd put [gypsy moths] above all those [other management issues]. If you did have complete deforestation, none of those things would really matter.

The only thing I would see as more important is more of an enforcement issue for the water skiers and the bikes on trails, because those I don't view as taking a lot of expenditure of manpower, it's just enforcing what's there.

With the gypsy moths, I think you're talking about something that has an immediate effect and, yes, is going to affect some of the issues we brought up, but there is a way to control it that is short-term... With erosion and the invasive species, these are long-term things that need to have a long-range plan.

Funding a Gypsy Moth Management Program

Participants did not believe that funding a gypsy moth control program would be a problem. Most people who expressed an opinion thought that raising forest user fees could fund a gypsy moth management program. Some participants thought that there should be enough money available in the state budget to protect the entire forest if funds were allocated properly.

I think we have the resources. I know the budget is tight, but with increased fees the DNR should be able to get the funds they need. This is why we have state parks and state forests. They should be protected.

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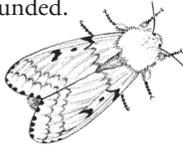
I would pay a higher user fee to help pay for this.

Some of it is proper use of funds . . . Spend money on things that are important, and this strikes me as being important. I guess I don't mind if there is one less park bench or one less picnic table or no stairs walking down to the lake and if the park rangers don't drive brand-new Explorers right away.

Management Recommendations

The focus group responses suggest that the public places a high value on the plant diversity and closed canopy of the SUKM forest, and that they want forest managers to take decisive action to protect the forest from gypsy moth damage. It is less clear from the focus group responses how SUKM forest managers should prioritize areas to be protected. Although most participants focused on high use areas such as campgrounds, picnic sites, and swimming areas, some participants cited less well used areas that are important because of their rarity and beauty, such as oak groves.

Since a focus group does not always accurately reflect broader public opinion, it is difficult to say whether the opinions of the focus group participants concerning which areas should be protected reflects the larger population. A scientific survey would provide better data about how the majority of SUKM users would prioritize areas to be protected from gypsy moth damage. Such a survey would also provide a clearer assessment as to how the public feels gypsy moth control should be balanced against other priorities and how control efforts should be funded.



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