Project Title: Introducing Minnesota's Resource Professionals to Global Pest Experts

Category: H. Proposals seeking $200,000 or less in funding
Sub-Category: C. Environmental Education

Total Project Budget: $19,400

Proposed Project Time Period for the Funding Requested: June 30, 2022 (3 yrs)

Summary: This proposal brings the next global gathering of IUFRO (forest pest experts) to Minnesota to exchange knowledge with local resource professionals (e.g., tree care providers, park and rec workers, etc.).

Name: Brian Aukema

Sponsoring Organization: U of MN

Title: Faculty member

Department: Department of Entomology

Address: 1980 Folwell Avenue

St. Paul MN 55108

Telephone Number: (612) 624-1847

Email: BrianAukema@umn.edu

Web Address

Location
Region: Statewide
County Name: Statewide

Alternate Text for Visual:
Picture shows a gathering of international experts on forest insect problems like emerald ash borer, gypsy moth, and mountain pine beetle, as well as associated tree damages.

Funding Priorities Multiple Benefits Outcomes Knowledge Base
Extent of Impact Innovation Scientific/Tech Basis Urgency
Capacity Readiness Leverage TOTAL %

If under $200,000, waive presentation?
PROJECT TITLE: Trees in trouble: Introducing Minnesota’s resource professionals to global experts

I. PROJECT STATEMENT

Summary: “IUFRO” is a global bi- or tri-annual gathering of the world’s leading experts on forest insect problems (e.g., mountain pine beetle, emerald ash borer, gypsy moth, etc.). This proposal aims to bring the next gathering to Minnesota and invite local resource professionals (e.g., tree care providers, park and rec workers, etc.) to facility knowledge exchange on current and potential new pests.

Below are two items that distinguish Minnesota’s natural resources from those of other states:

1) Minnesota faces a high number of challenges from a variety of tree and landscape pests: emerald ash borer, gypsy moth, brown marmorated stink bug, and Sirex woodwasp from the east, mountain pine beetle from the west, and a multitude of other issues such as eastern larch beetle and larch casebearer on tamarack, thousand cankers disease on walnuts, new vectors of Dutch elm disease on elms, and more.

2) Minnesota’s natural resources benefit tremendously from the LCCMR and its administration of the Environment and Natural Resources Trust Fund. As the director of the University of Minnesota forest insect laboratory, I have colleagues around the world who are jealous of our state’s investment in a responsive, recurring program dedicated to protecting and enhancing its natural resources. We are one of 29 states at present, for example, that has emerald ash borer. We are the only state, however, that has invested 6+ years of funding into sampling, monitoring, overwintering, dispersal, and biological control of this insect.

One of the restrictions with LCCMR funding is that it cannot be used to travel out of state. Yet, the globe continues to shrink and I receive requests to share our research and lessons – especially from LCCMR projects – all over the world. Sometimes we can accommodate, and sometimes we decline. A recent gathering sparked an idea: why not bring the world to us?

This idea coincides with a request from the International Union of Forest Research Organizations that the University of Minnesota organize a division meeting of the Forest Health Group in 2020. IUFRO is the oldest network of forest research organizations in the world (please note: not a labor union). The Forest Health Group typically meets every two years, moving around the world. The group provides an opportunity to gather global experts to share lessons about the current pests (e.g., emerald ash borer and gypsy moth) AND prepare for the ones of tomorrow (e.g., spruce bark beetles, pine processory moths, and Asian gypsy moths) before they arrive on our continent or within our states.

Proposal Aim

This proposal seeks partial funding to host an IUFRO meeting in Minnesota. Unlike other IUFRO global meetings, we would open the doors to local resource professionals such as park and rec workers, urban tree care providers, and more. The goal is provide opportunities to see how our pests like emerald ash borer, gypsy moth, and more are managed in other parts of the world, identify parallels in similar pests, and prepare for unforeseen challenges.
II. PROJECT ACTIVITIES AND OUTCOMES

**Activity 1:** Plan and host an international IUFRO Forest Health Working Group conference in fall 2020 or 2021 – with local participation from our natural resource professionals

**Description:** IUFRO workshops typically begin with a Monday night dinner/mixer followed by three days of presentations interrupted by a one day field trip to view local forest challenges. Total costs based on past workshops in other parts of the globe are projected to be ~$35-40K. This proposal seeks funding for the first half of the week (dinner, conference day, field trip) that would be open to local resource professionals, with the remainder of the funds to be raised from international attendee registration costs.

The conference would be hosted at the University of Minnesota arboretum, with international attendees staying at a proximate hotel and transported to/from workshop venue in rented vans. First half of workshop (including day long field trip to see things like EAB damage and gypsy moth infestations) would be open to local resource professionals. International attendees would be instructed to tailor these days to detection and management implications within presentations vs. basic research in last two days of workshop.

The workshop would be planned for fall of 2020 or 2021.

**ENRTF BUDGET:** $19,400

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>1. Plan workshop, including one day field tour of insect problems in Minnesota</td>
<td>Aug 2021</td>
</tr>
<tr>
<td>2. Deliver workshop</td>
<td>Dec 2021</td>
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</tbody>
</table>

III. PROJECT PARTNERS:

**A. Partners receiving ENRTF funding**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brian Aukema</td>
<td>Associate Professor</td>
<td>University of Minnesota</td>
<td>Project Lead</td>
</tr>
</tbody>
</table>

**B. Partners NOT receiving ENRTF funding**

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Affiliation</th>
<th>Role</th>
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<tbody>
<tr>
<td>None</td>
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IV. LONG-TERM IMPLEMENTATION AND FUNDING:

This gathering has occurred every two to three years in various places around the globe for decades. It has regularly occurred in the United States, but has never been hosted in Minnesota. This is a single request with no long-term planned requests.

V. TIME LINE REQUIREMENTS:

This is a one-time request and the project would be completed by December of 2021. If successfully funded, we would plan a gathering in September of either of 2020 or 2021.
### IV. TOTAL ENRTF REQUEST BUDGET [insert # of years for project] years

<table>
<thead>
<tr>
<th>BUDGET ITEM (See &quot;Guidance on Allowable Expenses&quot;)</th>
<th>AMOUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel: Six weeks salary for a conference coordinator hired through UMN ($6,350 incl. 27% benefits)</td>
<td>$ 6,350</td>
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<tr>
<td>Professional/Technical/Service Contracts: Room rental at UMN arboretum for 150 people (1 day; other two nonfield days to be paid from international attendee registrations; see below)</td>
<td>$ 800</td>
</tr>
<tr>
<td>Equipment/Tools/Supplies:</td>
<td>$ -</td>
</tr>
<tr>
<td>Acquisition (Fee Title or Permanent Easements):</td>
<td>$ -</td>
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<tr>
<td>Travel: Busing for day long field trip to showcase Minnesota's forest insect challenges and solutions and allow resource managers to interact with global experts ($2000); vans to shuttle workshop attendees between Arboretum venue and hotels 2 of 4 days ($1000)</td>
<td>$ 3,000</td>
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</tbody>
</table>

Additional Budget Items: Opening night dinner and mixer, continental breakfast, lunch, afternoon snacks will be paid from registration costs. Requesting $3750 (vendor quote) for snacks and box lunch for field trip est. 150 people. Also budgeting $5,000 for online registration system costs to raise remaining est. $20K in conference costs from international attendees. Conference programs/handouts: $500

TOTAL ENVIRONMENT AND NATURAL RESOURCES TRUST FUND $ REQUEST = $ 19,400

### V. OTHER FUNDS (This entire section must be filled out. Do not delete rows. Indicate "N/A" if row is not applicable.)

<table>
<thead>
<tr>
<th>SOURCE OF FUNDS</th>
<th>AMOUNT</th>
<th>Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Non-State $ To Be Applied To Project During Project Period: Remainder of conference expenses (meals and transportation between hotels and arboretum venue, small gift for attendees) will be raised from registration costs for international attendees (est. $20000)</td>
<td>$ 20,000</td>
<td>pending</td>
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<tr>
<td>Other State $ To Be Applied To Project During Project Period:</td>
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<tr>
<td>In-kind Services To Be Applied To Project During Project Period:</td>
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<td></td>
</tr>
<tr>
<td>Past and Current ENRTF Appropriation: none</td>
<td>$ -</td>
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<tr>
<td>Other Funding History: none</td>
<td>$ -</td>
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Trees in Trouble
Introducing Minnesota’s resource professionals to international experts
Exchanging lessons about the pests of today and tomorrow
Project Director Qualifications and Organization Description

Dr. Brian Aukema will administer the project at the University of Minnesota. Prof. Aukema joined the Department of Entomology as their Forest Insect specialist in the fall of 2010. Prior to this, he was a research scientist for five years with the government of Canada responsible for a program managing large-area insect outbreaks (such as mountain pine beetle).

Prof. Aukema and his students work on both native and invasive species threatening the state of Minnesota and beyond (e.g., mountain pine beetle on pines, emerald ash borer on ash, gypsy moth on oak and aspen, thousand cankers disease on walnut, eastern larch beetle and larch casebearer on tamarack, and more). Students he has taught can be found in a wide variety of resource professional positions, from city arborists to industry to state and federal government.

Prof. Aukema has successfully administered more than $2 million in research project funding from a wide variety of state, federal and industrial sources in his career. He has received early career awards for Creativity and Innovation (Government of Canada) and a University of Minnesota McKnight Land-Grant award.