



Western Forest Insect Work Conference

69th WESTERN FOREST INSECT WORK CONFERENCE
ANCHORAGE MARRIOTT DOWNTOWN
820 W 7TH AVE, ANCHORAGE ALASKA
APRIL 22-25, 2019

DRAFT AGENDA (All times AKT, presenters in italics)

MONDAY, 22 APRIL

- 1500-2000 Registration Open
- 1600-1700 Executive Meeting
- 1800-2000 **MEET AND GREET SOCIAL**

TUESDAY, 23 APRIL

- 0700-1000 Registration Open
- 0700-0800 Coffee and Tea
- 0800-0815 **WELCOME TO ANCHORAGE/HOTEL DETAILS/HOUSEKEEPING**
Elizabeth Graham, USDA Forest Service Forest Health Protection
- 0815-0915 **DISTINGUISHED SPEAKER**
- Entomology in Alaska: A dozen years of discovery**
Dr. Derek Sikes, Professor of Entomology and Curator of Insects, University of Alaska Museum, Institute of Arctic Biology, Department of Biology and Wildlife, University of Alaska Fairbanks
- 0915-0945 **MEMORIAL SCHOLARSHIP (2018) PRESENTATION**
- Spatiotemporal dynamics of forest insects in an era of global change**
Mr. Sam Ward, University of Minnesota
- 0945-1015 BREAK
- 1015-1145 CONCURRENT SESSION 1

1) ECOLOGY AND MANAGEMENT OF SPRUCE BEETLE IN WESTERN NORTH AMERICA

Chris Fettig, USDA Forest Service Pacific Southwest Research Station

Here we go again: The scale and impact of the current spruce beetle outbreak in Alaska

Jason Moan, Alaska Division of Forestry

Update on the current spruce beetle outbreak in British Columbia

Jeanne Robert, Ministry of Forests, Lands, and Natural Resource Operations

New research on adult overwintering, flight and reproduction

Kathy Bleiker and Telsa Willsey, Canadian Forest Service, Natural Resources Canada

Interactions among spruce beetle, Engelmann spruce phloem chemistry, and fungal symbionts

Thomas Seth Davis and Jane Stewart, Colorado State University

Lessons learned from battles on the front lines

Roger Burnside, Alaska Division of Forestry (retired)

2) OPEN SESSION

Sky Stephens, USDA Forest Service Forest Health Protection

Assessing forest health in Alaska

Stephen Burr, USDA Forest Service Forest Health Protection

Impact of the aspen leaf miner on plant physiology and performance

Diane Wagner, University of Alaska Fairbanks

Impact of defoliators on subsistence life style (title pending)

Nathan Lojewski, Chugachmiut Inc.

Current recommendations for applying MCH to prevent Douglas-fir beetle infestations

Darrell Ross, Oregon State University

1145-1315 LUNCH (on your own)

3) ECOLOGY AND MANAGEMENT OF SPRUCE BEETLE IN WESTERN NORTH AMERICA (PART 2)

Chris Fettig, USDA Forest Service Pacific Southwest Research Station

Mycoinsecticides for forestry: Spruce beetles as a model system

Cliff Bradley Montana Microbial Products LLC, Rich Hofstetter Northern Arizona University, Danielle Malesky and Amanda Grady USDA Forest Service, and Thomas Seth Davis Colorado State University

Recent advances in semiochemical-based tools for management of spruce beetle

Chris Fettig, Matt Hansen, Steve Munson, Darren Blackford USDA Forest Service, Jason Moan Alaska Division of Forestry and Dave Wakarchuk Synergy Semiochemicals

Systemic injectables for tree protection from spruce beetle and its associated fungi

Don Grosman Arborjet Inc., *Chris Fettig*, Darren Blackford and Steve Munson USDA Forest Service

Landscape scale silvicultural considerations for resistance and resilience to spruce beetle outbreaks

Justin DeRose USDA Forest Service Rocky Mountain Research Station, Marcella Windmuller-Campione and John Long Utah State University

Extension and outreach to communities impacted by spruce beetle in Alaska

Jessie Moan, Cooperative Extension Service, University of Alaska Fairbanks

4) CLIMATE IMPACTS ON FOREST DISTURBANCE IN ALASKA

Jeremy Littell, DOI USGS Alaska Climate Adaptation Science Center

Climate and wildfire: global-to-local interactions of climate, weather and fuels

Jeremy Littell, DOI USGS Alaska Climate Adaptation Science Center

Future boreal forest fire in Alaska: results from the Alaska Integrated Ecosystem Model

Amy Breen, University of Alaska Fairbanks

Contrasting climatic and biotic drivers of tree growth in Interior Alaska

Sean Cahoon, USDA Forest Service Pacific Northwest Research Station

Climate-beetle interactions in forests of southwest Alaska

Amy Miller- National Park Service- Denali

1445-1500 BREAK

1500-1630 **GRADUATE STUDENT SESSION I**

Andrea Hefty, USDA Forest Service Forest Health Protection

Fidelity and fitness effects of the fungal symbionts of invasive *Euwallacea* ambrosia beetles in Southern California

Christine Dodge and Joseph Carrillo University of California Riverside, Akif Eskalen University of California Davis, Richard Stouthamer University of California Riverside

How are conifer constitutive and induced defenses related? A multiscale approach to testing for tradeoffs

Michael Howe, Claudio Gratton, Ken Keefover-Ring, Jun Zhu, and Kenneth Raffa, University of Wisconsin Madison, Charles J Mason Pennsylvania State University, Kimberly Wallin, University of Vermont, Alvin Yanchuk Ministry of Forests, Lands, Natural Resource Operations & Rural Development, British Columbia

A study of the landing behavior of pioneer colonizing walnut twig beetles, *Pityophthorus juglandis*, in the context of host and non-host volatile profiles in a riparian forest in northern California

Jackson P. Audley, Crystal S. Homicz and Richard M. Bostock University of California Davis, and Steven J. Seybold USDA Forest Service

Arthropod communities in restoration of slash pile burn scars

Christine Mott and Rich Hofstetter, Northern Arizona University

1630-1700 **INITIAL BUSINESS MEETING**

1730-1830 SHERYL COSTELLO MEMORIAL FUN RUN

Darren Blackford, USDA Forest Service Forest Health Protection

1900-2100 **POSTER SESSION/SILENT AUCTION FOR MEMORIAL SCHOLARSHIP**

Monica Gaylord, USDA Forest Service Forest Health Protection

WEDNESDAY, 24 APRIL

0700-1000 Registration Open

0700-0800 Coffee and Tea

0800-0845 **DISTINGUISHED SPEAKER**

Pending

Dr. Ed Holsten USDA Forest Service Forest Health Protection (retired)

0845-1030 **GRADUATE STUDENT SESSION II**

Andrea Hefty, USDA Forest Service Forest Health Protection

Effects of invasive grasses and grazing on plant and pollinator diversity and abundance in the Colorado Front Range

Khum Thapa-Magar and Thomas Seth Davis, Colorado State University

The entomological and commercial impacts of bundling in thinning operations of northern Arizona.

Marcos Riquelme, Richard Hofstetter and David Auty Northern Arizona University, and Monica Gaylord USDA Forest Service

Phenology and infection rates of pine wilt disease vectors in ponderosa pine

David Atkins and Thomas Seth Davis, Colorado State University

Biological control agents of larch casebearer (*Coleophora laricella*) in eastern larch (*Larix laricina*) in Minnesota

Spencer Stout, University of Minnesota

Field responses of mountain pine beetle and *Ips grandicollis* to pheromone baits in a novel sympatric range

Zach Smith, University of Minnesota

1045-1700 **FIELD TRIP COMBINED WITH ALASKA CHAPTER OF THE SOCIETY OF AMERICAN FORESTERS**

Jason Moan Alaska Division of Forestry and *Elizabeth Graham* USDA Forest Service Forest Health Protection

Depart hotel, drive down Turnagain Arm with forest health stops in Anchorage, Bird Creek Campground, Chugach State Park, and Girdwood Ranger District

1800-2200 **2018 FOUNDERS AWARD BANQUET**

It seemed like a good idea at the time (or what could possibly go wrong?)
Dr. Staffan Lindgren, University of Northern British Columbia

THURSDAY, 25 APRIL

0700-0800 Coffee and Tea

0800-0845 **DISTINGUISHED SPEAKER**

**British Columbia's forest landscape: managing in a different ecological state.
Insect outbreaks and everything else.**

*Dr. Lorraine Maclauchlan, Ministry of Forests, Lands, Natural Resource
Operations & Rural Development, British Columbia*

0845-1015 CONCURRENT SESSION 3

5) FOREST POLLINATORS

Thomas Seth Davis, Colorado State University

**The challenges and pitfalls of sampling forest pollinators: common
problems and how to avoid them**

*Justin B. Runyon USDA Forest Service Rocky Mountain Research Station, and
Casey M. Delphia Montana State University*

**Impacts of a forest disturbance on pollinator abundance and diversity: An
example from interior Douglas-fir**

*Gabriel Foote and Darrell W. Ross Oregon State University, Christopher J.
Fettig and Justin B. Runyon USDA Forest Service*

**Insect-plant pollination networks of central Alaskan boreal forest in the
presence of invasive white sweetclover**

*Laura Schneller Alaska Center for Conservation Science, University of Alaska
Anchorage, Katie V. Spellman and Christa P. H. Mulder Biology and Wildlife
Department, University of Alaska Fairbanks, and Matthew L. Carlson
University of Alaska Anchorage*

**Patterns of pollinator diversity along elevation gradients in Denali National
Park**

*Jessica Rykken National Park Service, Derek Sikes and Adam Haberski
University of Alaska Fairbanks*

**6) REACH OUT! ENGAGING WITH THE PUBLIC ON FOREST HEALTH ISSUES
USING SEVERAL DIFFERENT APPROACHES**

Jessie Moan, Cooperative Extension Service

Montana's outreach efforts to discourage firewood from out of state

Amy Gannon, Montana Department of Natural Resources and Conservation - Forestry Division

Forest health: putting knowledge to work

Glenn Kohler, Washington Department of Natural Resources

Tweet! Post! Like! Incorporating social media into a forest health extension program

David Coyle, Clemson University

Working with limitations; how to use social media and improve websites as a federal employee

Elizabeth Graham and TJ Holley, USDA Forest Service Forest Health Protection

1015-1030 BREAK

1030-1200 CONCURRENT SESSION 4

7) FOREST POLLINATORS (PART 2)

Native bees, riparian restoration and ungulate herbivory at the US Forest Service Starkey Experimental Forest and Range

Sandra DeBano, Samantha M. Roof, Lauren A. Smith DiCarlo, and Scott Mitchell Oregon State University, Mary Rowland USDA Forest Service, Skyler Burrows Utah State University

Seasonal pollinator diversity of rangeland grasslands and neighboring forested habitats in eastern interior Alaska

Justin Fulkerson, Paul Schuette and Matt Carlson, University of Alaska Anchorage

Bark beetle outbreak enhances pollinator habitat and site occupancy in high elevation forests by reducing stand densities

Thomas Seth Davis Colorado State University and Paul R. Rhoades Idaho Department of Natural Resources

Discussion

8) HOW BAD WILL IT BE? APPLICATIONS OF RISK ASSESSMENT TO FOREST PESTS

Rob Venette USDA Forest Service Northern Research Station and Steve
Seybold USDA Forest Service Pacific Southwest Research Station

1200-1330 LUNCH (on your own)
1330-1400 FINAL BUSINESS MEETING
1400-1530 CONCURRENT SESSION 5

**9) GLiHT (GODDARD'S LIDAR, HYPERSPECTRAL & THERMAL IMAGER)
APPLICATIONS IN FOREST HEALTH: UPSCALING TREE-LEVEL DATA,
TERRESTRIAL LIDAR, AIR-BORNE AND SPACE-BORNE REMOTE SENSING
FROM PLOT TO LANDSCAPE**

Andy Graves, USDA Forest Service Forest Health Protection

GliHT development, application

Bruce Cook, NASA

Incorporating terrestrial LiDAR to air-borne GLiHT data

Ian Paynter, NASA

Identifying threat/stress potential related to insect and disease activity

Ryan Hanavan, USDA Forest Service Forest Health Protection

Proof of concept in western forest ecosystems

Robbie Flowers, USDA Forest Service Forest Health Protection

10) RESTORATION POST BARK BEETLE OUTBREAK

Darren Blackford, USDA Forest Service Forest Health Protection

1530-1600 BREAK
1600-1700 GROUP DISCUSSION AND CLOSEOUT

Local arrangements: Jason Moan (jason.moan@alaska.gov)

Program: Elizabeth Graham (elizabeth.e.graham@usda.gov), Kathy Bleiker, Thomas Seth Davis,
Chris Fettig, Monica Gaylord, Jason Moan

On Friday (26 April) the University of Alaska Cooperative Extension Service and the Alaska Division of Forestry are hosting a free community workshop (~2.5 hours) “Protecting trees from spruce beetles – the latest information on pesticide products and application.” Experts will discuss the impact of the outbreak, current management options, and then demonstrate applications of systemic products for tree protection. If you are interested in attending, please contact Jessie Moan (mjmoan@alaska.edu) for more information.

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