25th Annual Meeting
Midwest Chapter of the Society of Environmental Toxicology & Chemistry

Sustainable Water Resource Management:
From Urban To Rural

March 20-22, 2017
University of St. Thomas
Minneapolis Campus
Welcome to the 25th Annual Meeting of the Midwest Chapter of the Society of Environmental Toxicology and Chemistry (SETAC)!

The 2017 program consists of technical presentations and posters, and social activities. The Midwest Chapter of SETAC holds their annual meeting to provide professionals, academics, and students the opportunity to present their work, exchange ideas, and network with their peers. We hope you find this meeting rewarding!

REGISTRATION DESK HOURS
- Monday, March 20: 12:15 – 1:00 PM, outside Room 127 in Schulze Hall
- Tuesday, March 21: 7:30 – 10:15 AM, outside Room 260 in Terrence Murphy Hall
- Wednesday, March 22: 7:30 – 8:45 AM, outside Room 201 in Opus Hall

For those registering onsite, please plan to pay by check; use a credit card for the online registration.

PROGRAM
Attendees will receive a printed program upon check-in at the Registration Desk. As part of the commitment to a green meeting, abstract booklets won’t be provided; however display copies will be available at the Registration Desk.

MONDAY BOARD OF DIRECTORS' MEETING
The Midwest Chapter will hold a board of directors’ meeting on Monday from 5:15 – 6:45 PM in Room 127, Schulze Hall (open to all members).

MONDAY EVENING SOCIAL
Join fellow attendees at an informal Meet-n-Greet at Brits Pub & Eating Establishment (1110 Nicollet Mall) on Monday from 7:30 – 9 PM, or later! “Brits” is walking distance from the meeting location. Please note this event is not included in the registration fees. We hope you can join us!

PLATFORM PRESENTATION UPLOAD
All platform presenters will upload their presentations onsite the morning of their talk. Presentations can be uploaded at the Registration Desk on Tuesday/Wednesday morning from 7:30 – 8:10 AM. Please make every effort to bring your presentation to the Registration Desk during this time.

POSTER PRESENTATIONS
Poster presentations will take place on Tuesday from 5:15 – 7:30 PM in the Terrence Murphy Hall Atrium. Meeting organizers will make an announcement on Tuesday afternoon when the poster displays are ready, which will allow you to hang your poster before the poster session. Posters need to be available for viewing the entire poster social program.
25th Annual Meeting of Midwest Regional Chapter of SETAC

Welcome

RAFFLE
The Raffle Returns! Help our Chapter raise money to support the Student Travel Program.
Ticket Prices: 1 ticket for $1; 6 tickets for $5. Winning tickets will be drawn during lunch on Wednesday.
Please also consider donating an item – coffee, books, food items, and more! Bring them to the
Registration Desk and we will take it from there. Thanks for supporting our Students!

GO GREEN!
Please use the recycle bins distributed throughout the conference center. Please also feel free to bring
your water bottle/hot beverage container for use at the meeting.

VOLUNTEERING
Please consider volunteering for the Midwest SETAC organization! Leadership roles in the Regional
Chapters bring your name onto the radar and aids in becoming active at the national level as well as
providing you with opportunities to become part of the next generation of leaders. Each year our Midwest
Chapter needs Board Members and this year is no exception. We will elect several positions & nominations
can be submitted anytime to the President (Dawn Perkins) or during the annual meeting. Please become a
Chapter Member and vote for the new Board Members.

BEST STUDENT PLATFORM AND POSTER AWARDS
Midwest SETAC provides support for the Best Student Platform & Poster Presentations at our annual
meeting. The 3M Company & SC Johnson graciously provided $1,000 cash awards for each category. The
best student papers are determined by a panel of environmental scientists, and the winners are announced
at the end of the annual meeting. Each award must be used to defray costs to attend and present research
results at the next SETAC North America meeting.

STUDENT TRAVEL AWARD PROGRAM
Midwest SETAC established a program to support student travel to our annual meeting, and a limited
number of travel awards, up to $185, were made for this meeting. The purpose is to encourage student
participation and to help defray the cost of attending the annual meeting. Keep this in mind for 2018 and
apply early!

SPECIAL ASSISTANCE, QUESTIONS, SUGGESTIONS
If you require special assistance, if you have any questions or suggestions, please contact Dawn Perkins
(T: 608-224-6230).
# 25th Annual Meeting of Midwest Regional Chapter of SETAC

## Schedule at a glance

### MONDAY, MARCH 20

<table>
<thead>
<tr>
<th>TIME</th>
<th>EVENT</th>
<th>LOCATION</th>
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<tbody>
<tr>
<td>12:15-1pm</td>
<td>Registration</td>
<td>Schulze Hall, Foyer of Room 127</td>
</tr>
<tr>
<td>1-5pm</td>
<td>Short Course: <em>Eric Eager, UW-La Crosse</em></td>
<td>127 Schulze Hall</td>
</tr>
<tr>
<td>3-3:15pm</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>5:15-6:45pm</td>
<td>Midwest SETAC Board of Directors' Meeting</td>
<td>127 Schulze Hall</td>
</tr>
<tr>
<td>7:30-9pm</td>
<td>Meet-n-Greet at Brits Pub (food and drink on your own)</td>
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### TUESDAY, MARCH 21

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<tr>
<td>7:30-10:15am</td>
<td>Registration</td>
<td>Terrence Murphy Hall, Foyer of Room 260</td>
</tr>
<tr>
<td>7:30-8:10am</td>
<td>Presentation Upload</td>
<td>Terrence Murphy Hall, Foyer of Room 260</td>
</tr>
<tr>
<td>8:30am</td>
<td>Welcome &amp; Overview of the Day Moderator: <em>Dawn Perkins, Wisconsin State Laboratory of Hygiene, and Regional SETAC Chapter President</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>8:40-10:00am</td>
<td>Platform Presentations</td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
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<tr>
<td>10am</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:15am</td>
<td>Plenary Speaker: <em>Jeffrey Peterson, University of MN</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
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<tr>
<td>11am-noon</td>
<td>Platform Presentations</td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>noon</td>
<td>Lunch</td>
<td>201 Opus Hall (Great Rooms)</td>
</tr>
<tr>
<td>1:10pm</td>
<td>Update on North America SETAC Moderator: <em>Teresa Norberg-King, USEPA, Member SETAC NA Board of Directors</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>1:30-2:50pm</td>
<td>Platform Presentations Moderator: <em>Teresa Norberg-King, USEPA</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>2:50pm</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>3:05-4:05pm</td>
<td>Platform Presentations Moderator: <em>Teresa Norberg-King, USEPA</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>4:05pm</td>
<td>Stretch Break</td>
<td></td>
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<tr>
<td>4:15-5pm</td>
<td>Plenary Speaker: <em>Deborah Manning, Metropolitan Council of the Twin Cities</em></td>
<td>260 Terrence Murphy Hall (Thornton Auditorium)</td>
</tr>
<tr>
<td>5:15-7:30pm</td>
<td>Poster Session &amp; Social</td>
<td>Terrence Murphy Hall Atrium (located on 1st floor)</td>
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## Schedule at a glance

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<tr>
<td>8:30am</td>
<td>Welcome &amp; Overview of the Day</td>
<td>201 Opus Hall (Great Rooms)</td>
</tr>
<tr>
<td>8:35-10:15am</td>
<td>Platform Presentations</td>
<td>201 Opus Hall (Great Rooms)</td>
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<tr>
<td></td>
<td><em>Moderator: Liz Miller, UW-Madison</em></td>
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<tr>
<td>10:15am</td>
<td>Break</td>
<td></td>
</tr>
<tr>
<td>10:30-11:50am</td>
<td>Platform Presentations</td>
<td>201 Opus Hall (Great Rooms)</td>
</tr>
<tr>
<td></td>
<td><em>Moderator: David Feilarek, USEPA</em></td>
<td></td>
</tr>
<tr>
<td>11:50am</td>
<td>Lunch, Chapter Business Meeting, Raffle, and Awards (please bring your lunch to the meeting room)</td>
<td>201 Opus Hall (Great Rooms)</td>
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SHORT COURSE

Data Management, Statistical Analysis, and Graphics Using “R”

Eric Eager
ASST. PROFESSOR, MATHEMATICS & STATISTICS
UNIVERSITY OF WISCONSIN-LA CROSSE

This course will explore ways to implement common statistical approaches to problems in environmental toxicology and chemistry using the statistical software “R.”

Specific topics will include data management and analysis, hypothesis testing, regression, and graphics. Several hands-on examples will be provided throughout the course.

Dr. Eager received his Ph.D. in Mathematical Biology from the University of Nebraska-Lincoln in 2012. His research interests include theoretical ecology, stochastic processes, dynamical systems, and the scholarship of teaching and learning the interdisciplinary classroom.
SPEAKERS

The Water-Food Nexus

Jeffrey Peterson
DIRECTOR, WATER RESOURCES CENTER
UNIVERSITY OF MINNESOTA

Jeffrey M. Peterson is the Director of the University of Minnesota’s Water Resources Center, a partnership of University Extension and the College of Food, Agricultural, and Natural Resource Sciences. As Director, he provides overall leadership for the center’s outreach, teaching, and research activities involving faculty and students across the university. He also holds a faculty appointment as a professor in the Department of Applied Economics. He earned his Ph.D. from Cornell University in agricultural and resource economics. Prior to coming to Minnesota he held a faculty position in the Department of Agricultural Economics at Kansas State University for 15 years, including service as Director of Graduate Studies from 2014 to 2015. He is the recipient of national awards for his research on water policy analysis, focusing on water use and water quality impacts from agriculture. He currently serves as an editor of the Journal of Agricultural and Resource Economics.

Wastewater Reuse and Sustainability in the Twin Cities Region

Deborah Manning
PRINCIPAL ENGINEER
METROPOLITAN COUNCIL OF THE TWIN CITIES

Ms. Deborah Manning, P.E., is Assistant Manager for Plant Engineering with Metropolitan Council’s Environmental Services (MCES) and leads MCES’ wastewater reuse initiative. MCES provides wastewater conveyance and treatment services for more than 2 million customers in the 7-county Twin Cities metropolitan area, treating 250 million gallons per day of wastewater at 8 wastewater treatment plants. Ms. Manning holds B.S. and M.S. degrees in civil/environmental engineering from Virginia Tech and is a registered professional engineer in MN and VA. Ms. Manning’s career in the public and private sectors of the water industry has focused on working with water and wastewater utilities to prepare to meet upcoming regulatory, system expansion, and level of service requirements. Her publications are mainly in the areas of wastewater reuse and residuals management.
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Program

MONDAY, MARCH 20

12:15-1pm................. Registration
Schulze Hall, Foyer of Room 127

1-5pm.................... Short Course: Data Management, Statistical Analysis, and Graphics Using “R”
Eric Edgar, UW-La Crosse Mathematics & Statistics Asst. Professor
127 Schulze Hall

3-3:15pm.................. Break

5:15-6:45pm............. Midwest SETAC Board of Directors Meeting
127 Schulze Hall

7:30-9pm (or later) .... Meet-n-Greet at Brits Pub, 1110 Nicollet Mall
(food and drink on your own)

TUESDAY, MARCH 21

PLATFORM PRESENTATIONS & SPEAKERS LOCATED IN THORNTON AUDITORIUM

7:30-10:15am........... Registration
Terrence Murphy Hall, Foyer of Room 260

7:30-8:10am............. Presentation Upload
Terrence Murphy Hall, Foyer of Room 260

MODOERATOR: DAWN PERKINS, WISCONSIN STATE LABORATORY OF HYGIENE

8:30am.................... Welcome & Overview of the Day
260 Terence Murphy Hall (Thornton Auditorium)

8:40am.................... Integrating Chemical Monitoring Data With Biological Effects Data To Predict Hazards of Contaminants of Emerging Concern and in Minnesota Streams
Dafna Martinovic-Weigelt (Presenting Author), Natalia Garcia-Reyero, Avina C. Mehinto, Mark L. Furey

9:00am.................... Mixture Effects on Plant Uptake and Accumulation of Pharmaceuticals
Sara L. Nason, Elizabeth L. Miller (Presenting Author), KG Karthikayan, Joel A. Pedersen

9:20am.................... Pollutant Stress in the Maumee River: Impacted Physiology and Reproduction in Fathead Minnows (Pimephales promelas) and Sunfish (Lepomis spp.)
Nicholas Cipolletti (Presenting Author), Heiko L Schoenfuss

9:40am.................... Effects of the Fungicide Imazalil on the Fathead Minnow (Pimephales promelas) Reproductive Axis – A Case Study in 21st Century Toxicity Testing
Eric C. Randolph (Presenting Author), Gerald Ankley, Brett Blackwell, Jenna Cavallin, Wan-Yun Cheng, David Feltrek, Kathleen Jensen, Michael Kahl, Rebecca Milsk, Shane Poole, Travis Saari, Daniel Villeneuve

10:00am.................. Break

10:15am.................. Plenary Speaker Jeffrey Peterson: The Water-Food Nexus

11:00am.................. Development of a Water Quality Sulfate Standard to Protect Wild Rice from Hydroponic, Mesocosm, and Field Data
Edward B. Swain (Presenting Author)
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Program

TUESDAY, MARCH 21

PLATFORM PRESENTATIONS & SPEAKERS LOCATED IN THORNTON AUDITORIUM

11:20am .................................. Iron Sulfide Precipitates on the Roots of Wild Rice (Zizania palustris)
Sophie LaFond-Hudson (Presenting Author), Nathan Johnson, John Pastor, Brad Dewey

11:40am .................................. Septic Seepage in Minnesota Lakes and its Biological Effects on Resident Fish Species
Les Warren (Presenting Author), Jackie Blomker, Meaghan Guyader, Christopher Higgins, Heiko Schoenfuss

noon ..................................... Lunch
201 Opus Hall (Great Rooms)

MODERATOR: TERESA NORBERG-KING, USEPA

1:10pm .................................. Update on North America SETAC
Teresa Norberg-King, USEPA, Member SETAC NA Board of Directors

1:30pm .................................. Development of ELISA for the Measurement of Vitelligenin (Vtg) in Blood of the Painted Turtle (Chrysemys picta)
Stephen E. Bartell (Presenting Author), Kurt R. Illig

1:50pm .................................. Potential Long-Term Endocrine-Disrupting Effects of Crude Oil and Oil Dispersant Corexit EC9500A Utilizing the Sex Determination in the American Alligator
Satoru Kohno (Presenting Author), Cameron E. Williams, Nicole A. McNabb, Heiko L. Schoenfuss, Demetri D. Spyropoulos

2:10pm .................................. Chronic Toxicity of Binary-Metal Mixtures of Copper, Cadmium, and Chromium to Daphnia magna
Loren Hou (Presenting Author), Tham Hoang

2:30pm .................................. Fathead Minnow Diaries: How a Multi-Generational Exposure to an Urban Contaminant of Emerging Concern Mixture Impacted Apical Endpoints
Lina C. Wang (Presenting Author), Uku Hashay, Josh Robinson, Heiko Schoenfuss

2:50pm .................................. Break

3:05pm .................................. Fate and Predicted Toxicity of Ammonia from Small POTWs in Ohio Streams
Tyler Linton (Presenting Author), Craig Voros, Jon VanDommelen, Jack Liggett

3:25pm .................................. In Vitro Assessment of Androgenic Activity of Water Reclamation Plant Effluents in Greater Chicago
Austin Sovell (Presenting Author), Lily Ward, Abigail Lukowicz, Tom Minarik, Jackie Heltman, Heiko Schoenfuss, Dafna Martinovic-Welgert

3:45pm .................................. Biological Consequences of Urban Storm Water Runoff on Reproduction and Survival of Aquatic Organisms
Ben Westerhoff (Presenting Author), Heiko Schoenfuss, David Fairbairn

4:05pm .................................. Stretch Break

4:15-5pm ................................. Plenary Speaker Deborah Manning: Wastewater Reuse and Sustainability in the Twin Cities Region

5:15-7:30pm ............................. Poster Session & Social
Terence Murphy Hall Atrium (located on 1st floor)
25th Annual Meeting of Midwest Regional Chapter of SETAC

Program

WEDNESDAY, MARCH 22
PLATFORM PRESENTATIONS & SPEAKERS LOCATED IN 201 OPUS HALL GREAT ROOMS

7:30-8:45am .......... Registration
Opus Hall, Foyer of Room 201

7:30-8:10am .......... Presentation Upload
Opus Hall, Foyer of Room 201

MODERATOR: LIZ MILLER, UNIVERSITY OF WISCONSIN-MADISON

8:30am .................. Welcome & Overview of the Day
201 Opus Hall (Great Rooms)

8:35am .................. In Vitro Function of the Aryl Hydrocarbon Receptor Predicts In Vivo Sensitivity of Oviparous Vertebrates to Dioxin-like Compounds
Jon Doering (Presenting Author), Steve Wiseman, Alper Altaraz, John Giesy, Markus Hecker

8:55am .................. Assessing the Effects of Legacy Contaminants on Egg and Nestling Survival of Tree Swallows in Great Lakes Areas of Concern
Christine M. Custer (Presenting Author), Thomas W. Custer, Matthew Etterson, Paul M. Dummer

Jay Thompson (Presenting Author), Jason Conder, Jeff Roberts

9:35am .................. Meeting the Challenge of Controlling Invasive Aquatic Species to Minimize Environmental and Social Impacts on Our Water Resources
Joel G. Putnam (Presenting Author), Justine E. Nelson, John N. Steiner

9:55am .................. Measurement of Blue-Green Algal Toxins in Air and Water at Tainter Lake, Dunn Co., WI
Elisabeth Harrathy, Curtis Hedman (Presenting Author), Dawn Perkins, Bruce Eshelman

10:15am ................. Break

MODERATOR: DAVID FEIFAREK, USEPA

10:30am .................. Screening the ToxCast Phase I Chemical Library for Inhibition of Deiodinase Type I Enzyme Activity
Jeff S. Denny (Presenting Author), Joseph J. Korte, Carsten N. Knutsen, Jennifer H. Olker, Sigmund J. Degty, Michael W. Hormun, Philip C. Hartig, Mary C. Cardon

10:50am .................. Particle Size-Associated Toxicity Profiles of Ambient Particulate Matter from Urban California in an Alveolar Macrophage Model
Dagmara S. Antkiewicz (Presenting Author), Jocelyn D.C. Hemming, Chris Ruahl, Martin M. Shafer

11:10am .................. Evaluation of the Direct Peptide Reactivity Assay (DPRA) to Assess Sensitization Potential of Platinum Species
Jocelyn Hemming (Presenting Author), Mark Mieritz, Joel Ovardier, Martin Shafer

11:30am .................. Animal Alternatives for Whole Effluent Toxicity Testing: Perspectives from a Global Workshop
Teresa J. Norberg-King (Presenting Author), Michelle Embry, Scott Belanger, Thomas Braunbeck, Josh Butler, Philip Dorn, Brianna Farr, Patrick Guiney, Sarah Hughes, Marlo Sellin Jeffries, Romain Journal, Marc Leonard

11:50am .................. Lunch, Chapter Business Meeting, Raffle, and Awards
201 Opus Hall (Great Rooms) ... please bring your lunch to the meeting room
25th Annual Meeting of Midwest Regional Chapter of SETAC

Platform presentations

• Integrating Chemical Monitoring Data With Biological Effects Data To Predict Hazards of Contaminants of Emerging Concern and in Minnesota Streams
  Datma Martinov-Kulig (Presenting Author), Natalia Garcia-Reyero, Alina C. Mihintola, Mark L. Ferrey

• Mixture Effects on Plant Uptake and Accumulation of Pharmaceuticals
  Sara L. Nason, Elizabeth L. Miller (Presenting Author), KG Karthikeyan, Joel A. Pedersen

• Pollutant Stress in the Maumee River: Impacted Physiology and Reproduction in Fathead Minnows (Pimephales promelas) and Sunfish (Lepomis spp.)
  Nicholas Cipolatti (Presenting Author), Heiko L. Schoenfuss

• Effects of the Fungicide Imazalil on the Fathead Minnow (Pimephales promelas) Reproductive Axis – A Case Study in 21st Century Toxicity Testing
  Eric C. Randolph (Presenting Author), Gerald Anklea, Brett Blackwell, Jenna Cavallin, Wan-Yun Chang, David Feifarek, Kathleen Jensen, Michael Kahl, Rebecca Misk, Shane Poole, Travis Saari, Daniel Villeteneuve

• Development of a Water Quality Sulfate Standard to Protect Wild Rice from Hydroponic, Mesocosm, and Field Data
  Edward B. Swelin (Presenting Author)

• Iron Sulfide Precipitates on the Roots of Wild Rice (Zizania palustris)
  Sophie LaFond-Hudson (Presenting Author), Nathan Johnson, John Pastor, Brad Dewey

• Septic Seepage in Minnesota Lakes and its Biological Effects on Resident Fish Species
  Les Warren (Presenting Author), Jackie Blomker, Maeghan Guyader, Christopher Higgins, Heiko Schoenfuss

• Development of ELISA for the Measurement of Vitilogenin (Vtg) in Blood of the Painted Turtle (Chrysemys picta)
  Stephen E. Bartell (Presenting Author), Kurt R. Illig

• Potential Long-Term Endocrine-Disrupting Effects of Crude Oil and Oil Dispersant Corexit EC9500A Utilizing the Sex Determination in the American Alligator
  Satomi Kohno (Presenting Author), Cameron E. Williams, Nicole A. McNabb, Heiko L. Schoenfuss, Demetri D. Spyropoulos

• Chronic Toxicity of Binary-Metal Mixtures of Copper, Cadmium, and Chromium to Daphnia magna
  Loren Hou (Presenting Author), Tham Hoang

• Fathead Minnow Diaries: How a Multi-Generational Exposure to an Urban Contaminant of Emerging Concern Mixture Impacted Apical Endpoints
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- Biological Consequences of Urban Storm Water Runoff on Reproduction and Survival of Aquatic Organisms
  Ben Westerhoff (Presenting Author), Heiko Schoenfuss, David Fairbairn

- In Vitro Function of the Aryl Hydrocarbon Receptor Predicts In Vivo Sensitivity of Oviparous Vertebrates to Dioxin-like Compounds
  Jon Doering (Presenting Author), Steve Wiseman, Alper Alcaraz, John Giesy, Markus Hacker

- Assessing the Effects of Legacy Contaminants on Egg and Nestling Survival of Tree Swallows in Great Lakes Areas of Concern
  Christine M. Custer (Presenting Author), Thomas W. Custer, Matthew Etterson, Paul M. Dummer

- Evaluating Polyethylene Passive Sampler Performance Reference Compound (PRC) Modeling Methods in a Cross-Site Field Study
  Jay Thompson (Presenting Author), Jason Conder, Jeff Roberts

- Meeting the Challenge of Controlling Invasive Aquatic Species to Minimize Environmental and Social Impacts on Our Water Resources
  Joel G. Putnam (Presenting Author), Justine E. Nelson, John N. Steiner

- Measurement of Blue-Green Algal Toxins in Air and Water at Tainter Lake, Dunn County, WI
  Elisabeth Harraby, Curtis Hedman (Presenting Author), Dawn Perkins, Bruce Eshelman

- Screening the ToxCast Phase I Chemical Library for Inhibition of Deiodinase Type I Enzyme Activity
  Jeff S. Denny (Presenting Author), Joseph J. Korte, Carsten N. Knutsen, Jennifer H. Olker, Sigmund J. Degitz, Michael W. Hornung, Phillip C. Hartig, Mary C. Cardon

- Particle Size-Associated Toxicity Profiles of Ambient Particulate Matter from Urban California in an Alveolar Macrophage Model
  Dagmara S. Antkiewicz (Presenting Author), Jocelyn D.C. Hemming, Chris Ruehl, Martin M. Shafer

- Evaluation of the Direct Peptide Reactivity Assay (DPRA) to Assess Sensitization Potential of Platinum Species
  Jocelyn Hemming (Presenting Author), Mark Mieritz, Joel Ovarder, Martin Shafer

- Animal Alternatives for Whole Effluent Toxicity Testing: Perspectives from a Global Workshop
  Teresa J. Norberg-King (Presenting Author), Michelle Embry, Scott Belanger, Thomas Braunbeck, Josh Butler, Philip Dorn, Brian Farr, Patrick Guiney, Sarah Hughes, Marlo Solin Jefferies, Romain Jomard, Marc Leonard
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Poster presentations

1. Leveraging Recent Advances in Targeted and Non-Targeted Mass Spectrometry Instrumentation for the Analysis of Emerging Toxins (peptides/small molecules) in Surface Waters
   Frank Kero (Presenting Author), Josh Ye, Jamie Foss, Desmond Wichens, Jason Weisenseel

2. Methylmercury Contamination in the Lower Food Web of At-Risk Minnesota Rivers
   Phoenix A. Rogers (Presenting Author), Marissa C. Desphnis, Khadel Akindoiire-King, Kristoffer R. Roithus

3. Exploring Different Service Loss Estimation Approaches for Assessing Sediment Injury in Natural Resource Damage Assessment
   Michael Klerski (Presenting Author), Pieter Booth, Melanie Edwards, Jane Ma

4. Applying the Virtual Ecologist Approach to Assessing the Risks of Pesticides to Listed Species
   Pamela Rueda-Cediel (Presenting Author), Richard Brain, Amelie Schmolke, Nika Galic, Valery E. Forbes

5. Temperature and Estrogenic Exposure: Effects on the Predator-Prey Relationship Between Bluegill Sunfish and Fathead Minnows
   Victoria R. Korn (Presenting Author), Jessica L. Ward, Haiko L. Schoenhoss

6. Impaired Swim Bladder Inflation in Early-Life Stage Fathead Minnows Exposed to a Deiodinase Inhibitor, Iopanoic Acid

7. Reevaluating the Significance of Estrone as an Environmental Estrogen
   David J. Falisk (Presenting Author), Brett R. Blackwell, Jenna E. Cavallin, Kathleen M. Jansen, Michael D. Kahl, Shane T. Poole, Eric C. Randolph, Travis W. Saari, Daniel L. Villena, Gerald T. Ankley

8. Impacts of Embryonic Exposure to Triclosan on the Ability of Zebrafish Larvae to Capture Prey
   Rosita Balta (Presenting Author), Tisha King-Helden

9. Agricultural Runoff Deposits Nutrients, Hormones, and Fecal Bacteria Into Surface Water with Levels Correlating with Land Use
   Michael Walsh (Presenting Author), Sarah Reichert, Krassimira Hristova

10. Exploring Impacts of Complex Nanomaterials Using the Nematode C. elegans
    Nicholas J. Miumuth (Presenting Author), Mimi N. Hung, Robert J. Hamers, Xi Zhang, Catherine J. Murphy, Rebecca D. Klaper

11. Comparison of Amphibian and Mammalian Thyroperoxidase Inhibition by Xenobiotics
    Carsten N.F. Knutsen (Presenting Author), Michael W. Hornung

12. Novel Assessment of the Toxicity of Natural Water Impacted by Petroleum Hydrocarbons at the National Crude Oil Biodegradation and Natural Attenuation Research Site Near Bemidji, MN, USA
    Hannah N. Link (Presenting Author), Jennifer T. McGuire, Dalma Martinović-Weigelt

    Magdalena Osorio (Presenting Author), Clint Sowle, Kim D’Aloia, Owen Kinsky
25th Annual Meeting of Midwest Regional Chapter of SETAC
Poster presentations

14 Determining the Impacts of Environmental Contaminants to Zebra Mussels Using Gene Expression Biomarkers
Nicklaus J. Neureuther (Presenting Author), W. Edward Johnson, Kimani L. Kimbrough, Annie Jacob, Marc A. Mills, Chris Suchowki, Rebecca Klapner

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Mary Kosuth (Presenting Author)
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25th Annual Meeting of Midwest Regional Chapter of SETAC

Thank you for attending

On behalf of the 2017 Midwest Chapter Board of Directors, thank you for joining us at this meeting. Below are photos of the current members of the Board of Directors. If you have suggestions, if you want to become involved, you can find out more from any one of us!

Dawn Perkins
President, Midwest SETAC

1st Row: Dawn Perkins, Nadia Carmosini, Teresa Norberg-King, Jodi Mohs-Davis, Michael Kierski, Zachary Jorgenson
2nd Row: Camille Danielson, Jenna Cavallin, Tham Hoang, Tyler Linton, Elizabeth Miller, Joel Putnam

### MIDWEST SETAC REGIONAL CHAPTER BOARD OF DIRECTORS

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University of St. Thomas

Minneapolis Campus
1000 LaSalle Avenue
Minneapolis, Minnesota 55403

1. School of Law (MSL)
2. Terence Murphy Hall (TMH)
3. Opus Hall (MOH)
   School of Education
4. Parking at 11th Street
   and Harmon Place
5. Schulte Hall (SCH)
   Schulte School of
   Entrepreneurship
6. West Metropolitan
   Education Program
   (with underground
   parking garage)

- indicates parking locations close
to the University of St. Thomas
Minneapolis campus.

FROM THE WEST

OPTION ONE: I-35W East to I-394 Downtown Exit
to 10th Street North (exit 95A); to LaSalle Avenue; turn
left (north) on LaSalle Avenue to 11th Street; turn left
(west) on 11th Street. The campus will be on your
right.

OPTION TWO: I-94 East to Downtown Exit to 6th
Street; take Fourth Street to First Avenue; turn right
on First Avenue to 10th Street; turn left on 10th Street to
LaSalle Avenue; turn right on LaSalle Avenue to 11th
Street; turn right on 11th Street. The campus will be
on your right.

FROM THE EAST

I-94 West to 11th Street Exit (exit 223A); turn left.
West on 11th Street to LaSalle Avenue (one block
past Nicollet Mall). Campus will be on your right.

FROM THE SOUTH

I-35W North to Downtown Exits to 11th Street / Grant
Street Exit (exit 16A); turn left. West on 11th Street to
LaSalle Avenue (one block past Nicollet Mall). Cross
LaSalle Avenue. Campus will be on your right.

FROM THE NORTH

I-35W South to West I-94. West on I-94 to
11th Street Exit. West on 11th Street to LaSalle
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LaSalle Avenue. Campus will be on your right.

FROM THE AIRPORT

I-94 West to I-35W North. Downtown Exits to 11th
Street / Grant Street Exit (exit 16A); turn left. West on
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Mall). Cross LaSalle Avenue. Campus will be on
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