



# Jeff Mursau

STATE REPRESENTATIVE • 36<sup>TH</sup> ASSEMBLY DISTRICT

Assembly Committee on Environment  
AB 315- Posting Signs about Lyme Disease in State Parks  
August 15, 2019

Chairman Kitchens and Committee Members -

Thank you for the opportunity to testify in support of Assembly Bill 315, which would help raise awareness about Lyme Disease and steps to take to prevent tick bites.

Specifically, the bill requires the Department of Natural Resources (DNR) to work with the Department of Health Services (DHS) to design signs that would be displayed in our state parks, trails, recreational areas and state forests. The signs would inform visitors about the dangers of Lyme disease, offer tips on how to prevent tick bites, and encourage people to check for ticks.

This isn't just an "up north" issue. Ticks are present in all counties in Wisconsin and can be found in woods, brush, or tall grass. According to DHS, in 2018 Wisconsin had over 3,100 estimated cases of Lyme Disease. The average number of cases has more than doubled over the past 10 years. According to the CDC, Wisconsin is one of the states reporting the highest number of cases and in all reality the actual number of cases is probably a lot higher than what is reported.

The good news is that Lyme Disease is treatable, but early detection is important. Initially, a person might experience a rash or fever that can be treated with antibiotics. However, if a person leaves the infection untreated it can lead to arthritis or facial paralysis.

Individuals who spend a lot of time outdoors are the most susceptible to picking up a tick. That's why it makes sense to put signs up in our state parks, trails, recreation areas, and state forests that encourage visitors to take precautions.

Once again, thank you for holding a hearing on AB 315 today. I'm happy to answer any questions.

STANDING COMMITTEES:

Natural Resources & Energy, Chair  
Transportation, Veterans, & Military Affairs

JOINT COMMITTEES:

Audit Committee, Co-Chair

**ROBERT L. COWLES**

Wisconsin State Senator  
2nd Senate District

**Testimony on 2019 Assembly Bill 315**

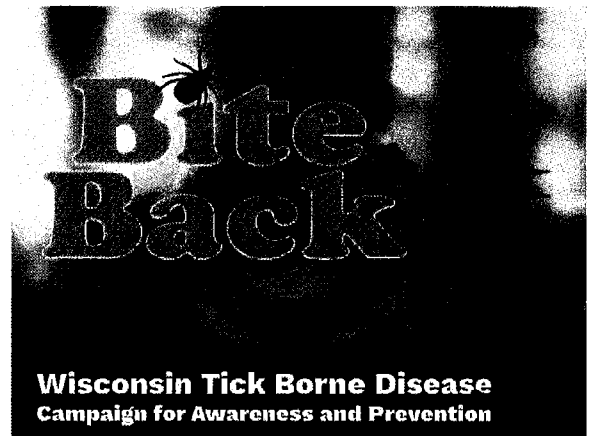
Senator Robert Cowles

Assembly Committee on Environment – August 15, 2019

Thank you, Chairman Kitchens and committee members, for allowing me to testify on 2019 Assembly Bill 315. This bill requires signage to raise awareness of Lyme Disease to be posted on each State Park System property.

The problem of Lyme Disease is growing and shows no signs of slowing. Lyme Disease is a bacterial disease transmitted to humans by an infected tick commonly known as the black-legged tick or deer tick. Lyme Disease is manageable if caught early, but if left untreated, the infection may spread and produce symptoms that include, but aren't limited to, severe headaches and neck stiffness, pain and swelling in large joints, fatigue, cognitive decline, shooting pains, and heart palpitations.

Lyme Disease is the most commonly reported vector-borne illness, which are diseases contracted by humans from animals and usually through a bite, in the United States with an estimated 300,000 Americans diagnosed each year. According to the federal Centers for Disease Control (CDC), in 2014, nearly 96% of the 25,359 Lyme Disease cases are reported from only 14 states in the Northeast and Northern Midwest with 2,975 of these cases (11.7%) reported from Wisconsin. Lyme Disease is the highest reported tick-borne disease in Wisconsin, with a total of 38,394 cases reported between 1990 and 2015. In 2017, Wisconsin is the 4th-worst state in the nation for incidence of Lyme Disease, and rates are only increasing. Lyme Disease is most common in the Northern and Western regions of the state, but is contracted in all regions of the state.



Lyme Disease is the highest reported tick-borne disease in Wisconsin, with a total of 38,394 cases reported between 1990 and 2015. In 2017, Wisconsin is the 4th-worst state in the nation for incidence of Lyme Disease, and rates are only increasing. Lyme Disease is most common in the Northern and Western regions of the state, but is contracted in all regions of the state.

While about a dozen other states have taken actions to address the disease in recent sessions, Wisconsin has fallen behind as rates of Lyme Disease has doubled in the last decade and experts at the CDC believe the number of cases may be as much as 10 times higher than what is reported through surveillance. This bill is one of five in a series of small, yet important steps to improve our approach and foster continuing discussions to combat Lyme Disease in Wisconsin.

Assembly Bill 315 requires signage designed by the Department of Natural Resources and Department of Health Services to raise awareness of Lyme Disease, inform on how to prevent tick bites, and encourage visitors to check for ticks after visits to be posted in common areas such as the park entrance, a trailhead, or in a campground in all state parks, forests, recreational areas, and trails with at least one sign per property. Legislation similar to this was recently implemented in New York and is recommended by the Wisconsin Environmental Public Health Tracking Program.

These signs would not be there to alarm, but instead will inform visitors on the dangers of Lyme Disease and the simple steps to lower their risk of becoming the next case of Lyme Disease. Not only will visitors be more aware while on state properties, but these signs will help to remind people to be aware of ticks while in their own backyards and anytime they spend time outdoors.

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
101 S. Webster Street  
Box 7921  
Madison WI 53707-7921

Tony Evers, Governor  
Preston D. Cole, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



## Assembly Committee on Environment

### *2019 Assembly Bill 315* *Lyme Disease Signs on DNR Lands* 8/15/2019

Good afternoon Chairman Kitchens and members of the Committee. My name is Brigit Brown, and I am the Section Chief for Recreation Management in the Bureau of Parks and Recreations Management with the Wisconsin Department of Natural Resources. Thank you for the opportunity to testify for informational purposes on Assembly Bill 315 (AB 315), which requires the Department to post signs about Lyme disease on Wisconsin State Park System lands. These lands include state parks, state trails, state recreation areas, and state forests. We also want to acknowledge and thank the bill authors for reaching out to us and working with the DNR prior to this bill being introduced.

Lyme disease is a significant concern for our visitors and staff. Reported cases have more than doubled across the state in the past 10 years. Everyone who works in the Wisconsin State Park System knows someone with, or who has had, Lyme disease, or has had it themselves. This bill is designed to help raise awareness of Lyme disease, inform individuals about how to prevent tick bites, and encourage people to check for ticks after visiting our properties.

AB 315 directs the Department to work with the Department of Health Services to develop the signs, and with our staff and partners to post the signs. One sign is required at each property, posted in a high visibility location.

We appreciate the \$12,500 appropriation in each year of the biennium contained in the bill to help us fund this effort and we believe we would be able to implement this bill within six months, as required in the legislation.

On behalf of the Wisconsin State Park System and the DNR, thank you for your time today. I would be happy to answer any questions you have.

Dr. Lyric Bartholomay  
Director, Midwest Center of Excellence for Vector-Borne Disease  
Department of Pathobiological Sciences, School of Veterinary Medicine  
University of Wisconsin-Madison



**Midwest Center  
of Excellence**  
VECTOR-BORNE DISEASE

**Assembly Committee on Environment – Assembly Bills 315, 316 (SUPPORT)**  
**Testimony provided by**  
**Lyric Bartholomay**  
**Midwest Center of Excellence for Vector-Borne Disease**  
**August 15, 2019**

Chair Kitchens & Members of the Assembly Committee on Environment,

Thank you for the opportunity to testify today in support of Assembly Bills 315 and 316. My name is Lyric Bartholomay. I am a Medical Entomologist, and one of the Directors of the Midwest Center of Excellence for Vector-Borne Disease at the University of Wisconsin-Madison. I hold a faculty position in the Department of Pathobiological Sciences, in the School of Veterinary Medicine.

Wisconsin is a hot spot in the nation for tick-transmitted disease, and Lyme disease in particular. Indeed, we are considered a “High Incidence” state, along with New England and Mid-Atlantic states, and we rank in the top 10 of states most impacted by Lyme disease. Lyme disease can make people very, very ill and must be caught early in order to avoid long-term, devastating health impacts. Currently we do not have a vaccine for Lyme disease, and we do ~~have~~ not have an easy way to control ticks. Therefore, the best line of defense we have for preventing Lyme disease is preventing tick bites.

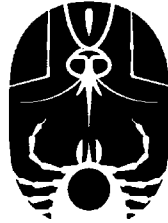
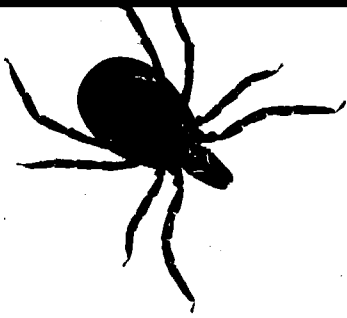
Assembly Bills 315 and 316 promote the use of inexpensive and practical measures that will help members of the public avoid tick bites and the diseases that they spread. Assembly Bill 315 speaks to posting signs in recreational and natural areas, to alert the public to the presence of ticks and associated risk of Lyme disease. Signs will remind people to use personal protective measures to prevent contact with ticks, and to check for ticks later. Assembly Bill 316 speaks to making bug sprays that repel ticks readily available for visitor purchase at state parks and forests. This will facilitate visitors’ bug spray use, and the presence of bug sprays will serve as a reminder for visitors to be on the lookout for ticks.

Ticks are the linchpin in Lyme disease transmission. If we avoid contact with ticks, by repelling them, or preventing them from getting onto our bodies, OR if we do tick checks and find them before they have been attached and feeding for a few days, we effectively pull the pin and derail the disease. Alerting people to the presence of ticks, and giving them tangible means to preventing Lyme transmission, is equivalent to posting signs about handwashing and providing

hand sanitizers to prevent flu and food-borne illnesses. These are effective, inexpensive, and sensible things that we can do to empower people to stay healthy.

In sum, my professional opinion is that these bills align with what we know about effective prevention measures for Lyme disease, and they align the goals of protecting public health and promoting the value and importance of people being outdoors and enjoying the bounties of Wisconsin natural resources.

I would like to thank Senator Cowles and Representative Mursau for introducing this legislation and I thank the committee for taking the time to consider these important bills. I would be happy to take questions at this time.



## Midwest Center of Excellence

VECTOR-BORNE DISEASE

### **Diseases spread by ticks & mosquitoes are on the rise in the US with at least 300,000 cases each year...**

- From dramatic increases in Lyme Disease cases to newly emerging issues like the Zika virus, **infections carried by ticks and mosquitoes are a serious and growing problem**
- In May 2018, the CDC released a special report on Vector-Borne Disease that shows **our public health system and vector control infrastructure is not adequately prepared to respond to vector-borne disease threats.** The report called for strengthening public health programs to track and prevent these diseases, offering training to increase our ability to respond to and control vector-borne disease, and supporting research and discovery of new tools for reducing the risks.

### **... and the Midwest Center of Excellence for Vector-Borne Disease (MCEVBD) is working to better prepare us for these threats.**

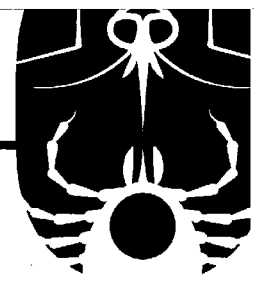
#### **We are:**

- Bringing together scientists, public health officials, and vector control specialists across the Midwest to promote communication, collaboration and coordination
- Improving our ability to forecast outbreaks with better monitoring and sophisticated models
- Testing and developing environmentally sound methods to control mosquitoes and ticks
- Training the next generation of experts and helping professionals gain new skills



# about us

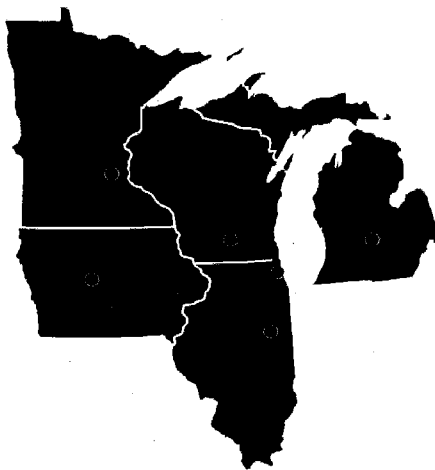
---



## WHAT IS THE MIDWEST CENTER OF EXCELLENCE FOR VECTOR-BORNE DISEASE?

A diverse group of researchers, vector control specialists, and public health experts across the Midwest who are working together to better monitor, understand, control, and share information about mosquitoes, ticks, and the diseases they carry.

## OUR MAIN PARTNERS



- **University of Wisconsin-Madison**
- **Michigan State University**
- **University of Illinois Urbana-Champaign**
- **Loyola University of Chicago**
- **Iowa State University**
- **Minnesota Department of Health**

**Affiliates include:** Wisconsin Department of Health Services | Public Health Madison & Dane County | Metropolitan Mosquito Control District | University of Minnesota | Mayo Clinic | Northwest Mosquito Abatement District | North Shore Mosquito Abatement District | Illinois Department of Public Health | Illinois Natural History Survey | Chicago Department of Public Health | Champaign-Urbana Public Health District | Michigan Department of Health and Human Services | Saginaw Mosquito Abatement District | University of Iowa | Iowa Department of Public Health | University of Dubuque | Indiana State Department of Health

## CONTACT US

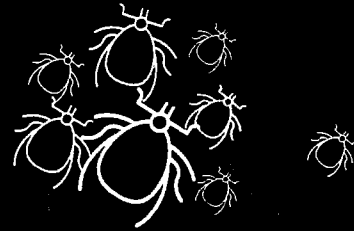


**Dr. Lyric Bartholomay**  
Co-Director  
lbartholomay@wisc.edu  
608-890-1965



**Dr. Susan Paskewitz**  
Co-Director  
smpaskew@wisc.edu  
608-262-1269

# TICKBORNE DISEASES RISK IN WISCONSIN



There are many diseases that can be spread by ticks in Wisconsin. Anaplasmosis, babesiosis, ehrlichiosis, Lyme disease, Powassan virus infection, and Rocky mountain spotted fever are among the diseases that can be spread by ticks. Most tickborne diseases in Wisconsin are spread by the black-legged tick (also known as the deer tick). Preventing tick bites is the key to reducing your risk of tickborne disease.

## Tickborne Diseases Risk

The risk of Lyme disease and other tickborne diseases in Wisconsin is increasing as the state is seeing more months of the year when ticks are active. Longer tick seasons increase the chance of someone coming into contact with a tick.

**It is important to remember that ticks are present in all counties in Wisconsin. People living in any county in Wisconsin can contract Lyme disease and other tickborne diseases.**

Follow the prevention tips below to reduce your chances of being bitten by a tick.

## Tick Bite Prevention

**PROTECT YOURSELF FROM BITES.** Wear insect repellent with 20% or more DEET. Wear a long-sleeve shirt and pants while outdoors.

**AVOID TICK-HEAVY AREAS.** Ticks like to live in tall bushes and other vegetation. When walking on trails, stay in the center and do not go off into the brush.

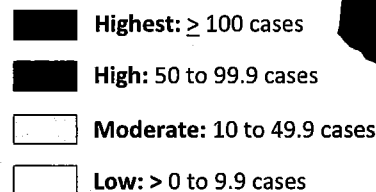
**PERFORM DAILY TICK CHECKS.** Check your entire body after being outside, even if you were only in your yard. Shower as soon as possible after coming in from the outdoors.

**BE ALERT FOR FEVER OR RASH.** Even if you do not remember being bitten by a tick, a fever or rash may be the first sign of Lyme disease. Symptoms of tickborne diseases may include fever, chills, muscle aches, fatigue, headache, and rash (not in all tickborne diseases). Contact your doctor right away if you have any of these symptoms.

Average incidence of confirmed and probable Lyme disease, anaplasmosis, and babesiosis cases by county of residence, 2009-2018

### Risk Level

(Incidence per 100,000 population)



\*Lyme disease, anaplasmosis, and babesiosis account for the majority of tickborne disease cases in Wisconsin.

**TUMBLE DRY CLOTHES AFTER BEING OUTDOORS.** Tumble dry your clothes on high heat for 10 minutes to kill any ticks that may have come in on your clothes.

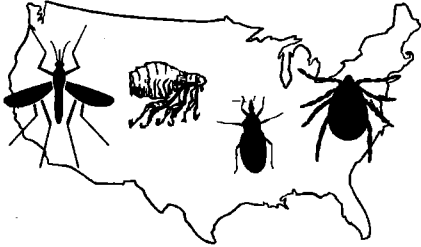
**PREVENT TICKS ON ANIMALS.** Try to prevent pets from bringing ticks into your home by not allowing them in tick-infested areas, and by using veterinarian-prescribed tick collars or spot treatment.





## Regional Centers of Excellence in Vector-Borne Diseases

# BUILDING OUR NATION'S CAPACITY TO RESPOND



The five Regional Centers of Excellence in Vector-Borne Diseases were established in 2017 to strengthen our nation's ability to prevent and rapidly respond to current and emerging vector-borne disease threats. We combine innovative applied research programs with public health expertise and practice to support the vector-borne disease workforce through workshops, resources, and networks.

**We serve a catchment area of over 330 million people across 41 state and territorial jurisdictions of the United States in high-risk areas for vector-borne disease.**

### APPLIED RESEARCH

Conduct applied research to develop and validate innovative and effective vector-borne disease prediction, prevention, and control tools and methods.

- Improve mosquito & tick surveillance
- Address gaps in knowledge of vector biology & disease transmission
- Investigate and identify effective prevention and control methods
- Disseminate findings directly to the public health community

### EDUCATION TRAINING

Train vector biologists, entomologists, and medical providers in the knowledge and skills required to address vector-borne disease concerns.

- Training grants for working professionals
- Innovative academic programs for the next generation of public health entomologists
- Hands-on and web-based workshops to reach broad audiences in the vector surveillance & control community

### COMMUNITY OF PRACTICE

Strengthen and expand collaboration between academic communities and public health organizations for surveillance, prevention, and response.

- Targeted working groups with diverse membership from academic and public sectors
- Guidance to state and local agencies on effective approaches for vector surveillance & control
- Enhanced networks for communication, data sharing, and integration of research and public health practice

## OUR COMBINED EFFORTS

- **National survey of tick surveillance programs**, addressing a gap in our knowledge of baseline program operations in tick surveillance and control in the US, and barriers to program success
- **Aedes Challenge**, an invasive mosquito forecasting challenge across the 5 CoE regions, engaging modelers with public health and vector control decision-makers
- **Smartphone Apps allowing people living in high-risk areas for ticks and tick-borne diseases** to receive educational materials, participate in tick exposure research, and access information for tick control & tools to protect themselves from tick bites



## REGIONAL PROGRAM HIGHLIGHTS



**Midwest Center of Excellence**  
VECTOR-BORNE DISEASE

- **Research Fellowship Program supporting 42 undergraduate and graduate students** on research projects with academic and public health partners in the region
- Implementing studies to **measure impact of mosquito larval control** on adult populations and disease prevalence, and **testing the impact of Ultra-Low-Volume spray treatments** on adult mosquito populations in the Chicago area
- CoE academic and public health partners engage in rapid communication and collaboration in **joint efforts to sample mosquitoes in areas with Jamestown Canyon Virus cases**



- **Rapid response to the invasive Asian longhorned tick**, providing open-access resources and initiating applied research projects to understand this tick's impact on human health
- **Over \$1 million in funding for academic trainees**, supporting an innovative graduate training program in vector biology and public health in the Northeast
- **23 applied research initiatives**, measuring the impact of vector control efforts on human disease risk and identifying training gaps and needs for our nation's vector-borne disease workforce



**PACIFIC SOUTHWEST CENTER OF EXCELLENCE IN VECTOR-BORNE DISEASES**

- CalSurv Gateway – a scalable system for **rapid data reporting that services 117 US vector control and public health agencies**
- Annual open call for training grants, **providing over \$3.2 million in funding dedicated to students** in the Pacific Southwest
- **27 research and development projects at 10 universities** examining new and existing ways to detect, characterize, and control threats from mosquito- and tick-borne diseases



**CDC Southeastern Center of Excellence in Vector Borne Diseases**  
The Gateway Program

- **Effective collaboration between academic and local governmental institutions** through close working ties with 12 departments of health, vector control districts, and six academic institutes, enabling studies of new, cutting-edge vector control approaches
- **Trained over 300 individuals through 3-month internships & existing and newly established workshops across the Southeast and Caribbean**, addressing identified gaps from vector biology to leadership development
- Online Mosquito Training Program bringing **the commercial pest management workforce into public health entomology**



**Western Gulf Center of Excellence for Vector-Borne Diseases**

- Diverse projects evaluating interventions using **traditional and innovative vector control techniques to reduce yellow fever mosquito abundance in South Texas**
- Newly developed **online courses in fundamentals of public health entomology**, with inter-institutional **graduate student exchange experiences** among partnering universities
- **Trained 2,309 individuals from vector control, animal control, and public health fields** through 1-day workshops and 3-day Master of Vector Borne Disease Management Certification workshops throughout Texas, Louisiana, and Mississippi