Dr. Jean Tsao

Associate Professor
Michigan State University
Dept. of Fisheries & Wildlife
Dept. of Large Animal Clinical Sciences

- Has more than 20 years of experience studying the ecology of ticks and tick-borne pathogens
- Uses combination of field, laboratory, and modeling techniques.
- Investigates the Lyme disease system in endemic, non-endemic, and emerging areas at local, regional, and continental scales using both observational and experimental study designs.
- Analyzes direct applications and implications for public health
- Participated and led teams to investigate the eco-epidemiology of LD at the national level, to understand the ecological processes underlying the latitudinal cline in LD cases despite the widespread nature of the vector ticks throughout the eastern US.
- Works with MSU Lab to document and monitor the spread of the Lyme disease tick and pathogen in Michigan, using a variety of field ecological methods
- Collaborates with veterinary clinics to survey for ticks on companion animals.
- Worked with scientists and public health workers in state and federal agencies as well as with non-profit organizations and industry.
- Served as an associate editor for the international journal *Ticks and Tickborne Disease*
- Served on review panel for the Infectious Disease Society of America's Clinical Practice *Guidelines for the Prevention, Diagnosis, and Treatment of Lyme disease*
- Subcommittee for Disease Vectors, Surveillance, and Prevention for the US Department of Health and Human Service's Tickborne Disease Working Group.
- Committed to training the next generations of One Health scientists, especially to build capacity to fight vector-borne diseases.
- At Michigan State University:
    - Helped to develop graduate program in Conservation Medicine and also teach a graduate course of the same name
    - Contributes to teaching the medical entomology course
    - Co-teaches a field course in vector ecology
    - Teaches a veterinary clerkship that trains students to conduct field investigations in wildlife and zoonotic diseases
    - Member of the CDC-funded Midwest Centers of Excellence last 5 years, funded for next 5 years
    - Trained undergraduate and graduate students in STEM, veterinary, and public health graduate programs as well as public health professionals to build capacity in public health entomology
- Continues to work to reduce human exposure to ticks through education as well as developing innovative methods to reduce tick and mosquito vector populations.
- Will show us how to use the Tick App to participate in valuable field work