



## Presentations for Sessions for the Third CWD international Symposium

### **Regulating CWD**

Session Chair: Tom Gidlewski ([Thomas.Gidlewski@aphis.usda.gov](mailto:Thomas.Gidlewski@aphis.usda.gov)) and Greg Douglas ([Greg.Douglas@gov.sk.ca](mailto:Greg.Douglas@gov.sk.ca)).

1. The APHIS-Veterinary Services Chronic Wasting Disease Program: Updates and Challenges. Dean Goeldner, USDA/APHIS/VS
2. The Regulatory Challenge that is CWD. Con Kiley, Canadian Food Inspection Agency (CFIA)
3. The Center for Food Safety and Applied Nutrition's Role in CWD. Amber McCoig, FDA.

### **Ecology and Epidemiology of CWD - 2 hour**

Session Chairs: Julie Blanchong ([julieb@iastate.edu](mailto:julieb@iastate.edu)) and Eric Schaubert ([schauber@siu.edu](mailto:schauber@siu.edu))

1. Mule and White-Tailed Deer Population Genetics in Western Canada: Implications for Chronic Wasting Disease Spread. Catherine Cullingham, University of Alberta & Western College of Veterinary Medicine.
2. Causes of Mortality and Vital Rates for a White-Tailed Deer Population in the CWD-Enzootic Area of Wyoming. David Edmunds, University of Wyoming.
3. Linking Process to Pattern: Estimating Spatio-Temporal Dynamics of a CWD Epidemic from Hunter-Harvest Samples. Dennis Heisey, USGS National Wildlife Health Center.
4. Factors Affecting Direct Contact Between Male and Female Mule Deer in Southern Saskatchewan: Implications for Chronic Wasting Disease Management. Erin Silbernagel, University of Saskatchewan.
5. Lions and Prions and Deer Demise. Heather Swanson, City of Boulder Open Space and Mountain Parks.
6. Spatially Explicit, Individual-Based Modeling of Chronic Wasting Disease Transmission. Lene Jung Kjær, Southern Illinois University.

### **Human Dimensions of CWD - 2 hour**

Session Chairs: Jerry Vaske ([jerryv@warnercnr.colostate.edu](mailto:jerryv@warnercnr.colostate.edu)) and Jordan Petchenik ([jordan.petchenik@wisconsin.gov](mailto:jordan.petchenik@wisconsin.gov))

1. Human Dimensions of Chronic Wasting Disease: A Synthesis and Proposal for Future Wildlife Disease Research. Jerry Vaske, Colorado State University.
2. Hunters' General Disease Risk Sensitivity and Behaviors Associated with Chronic Wasting Disease. Craig Miller, University of Georgia

3. Risk Sensitivity and Hunter Perceptions of Chronic Wasting Disease and Other Hunting Risks. Mark Needham, Oregon State University.
4. Perceived Threats to the Future of Deer Hunting in Colorado and Wisconsin. Katie Lyon, Colorado State University.
5. Evaluating Public Support for and Awareness of CWD Management in Northern Illinois. Stacy Lischka, Illinois Natural History Survey.
6. Chronic Wasting Disease: A Policy and Management Assessment. Lori Shelby, George Mason University.

**Ecology and Epidemiology of CWD - 1.5 hour evening session**

Session Chairs: Julie Blanchong ([julieb@iastate.edu](mailto:julieb@iastate.edu)) and Eric Schaubert ([schauber@siu.edu](mailto:schauber@siu.edu))

1. Contact Structure of White-Tailed Deer in New York: Informing Risk Models and Management Decisions. David Williams, State University of New York.
2. Transmission Rates of Chronic Wasting Disease Based on a Risk Assessment of Scrape Use by White-Tailed Deer. Scott Hygnstrom, University of Nebraska.
3. Landscape Structure and Deer Distribution: Implications for Contact Rates and CWD. Thomas Habib, University of Alberta.
4. Modelling CWD Spread Using Surveillance Data. Erin Rees, University of Alberta.

**Research in Prion Biology of CWD - 2 hour**

Session Chair: Jean Jewell ([JJewell@uwyo.edu](mailto:JJewell@uwyo.edu))

1. Immunohistochemical Study of the Pathogenesis of Chronic Wasting Disease in Captive Elk. Catherine Graham, Canadian Food Inspection Agency.
2. Prion Infections: From Molecular Biology to Therapy and Prophylaxis. Hermann Schatzl, Technical University of Munich and University of Wyoming.
3. Mass Spectrometric Approaches to Detecting and Quantifying Prions. Christopher Silva, USDA, ARS.
4. Quantifying the Species Barrier in Chronic Wasting Disease by a Novel *In Vitro* Conversion Assay. Neil Cashman, University of British Columbia.
5. Prion Agent Shedding from the Olfactory Sensory Epithelium into Nasal Secretions. Richard Bessen, Montana State University.
6. Transgenic Mouse Models and *In Vitro* Studies of CWD. Glenn Telling, University of Kentucky.

**Environmental Contamination Issues and Research - 2 hour**

Session Chair: Chris Johnson ([cjohnson@usgs.gov](mailto:cjohnson@usgs.gov))

1. Chronic Wasting Disease and the Environment: Contamination, Persistence and Remediation. Christopher Johnson, USGS National Wildlife Health Center.
2. Evidence for Soil Humic Substances Interaction with Prions. Liviana Leita, Consiglio per la Ricerca e Sperimentazione in Agricoltura, Italy.
3. Transport of the Pathogenic Prion Protein Through Porous Media. Joel Pedersen, University of Wisconsin.
4. Prion Protein Adsorption to Soil in a Competitive Matrix. Samuel Saunders, University of Nebraska.

5. Detection of Protease-Resistant Prion Protein in Water from a CWD-Endemic Area. Tracy Nichols, Colorado State University.
6. Effect of invertebrates on Environmental Prion Contamination. Jay Schneider, University of Wisconsin.

**\*CWD Surveillance - 2 hour**

Session Chair: Gregg Arthur ([Gregg.Arthur@wgf.state.wy.us](mailto:Gregg.Arthur@wgf.state.wy.us)) and Terry Kreeger ([tkreeger@wildblue.net](mailto:tkreeger@wildblue.net))

1. CWD Surveillance in Wild and Farmed Cervids in Alberta. Margo Pybus, Alberta Fish and Wildlife Division.
2. When the Well Runs Dry: Conducting Surveillance for Chronic Wasting Disease with Limited Funding. Daniel Walsh, Colorado Division of Wildlife.
3. NeuroPrion Cervid Group Activities and Surveillance for TSEs in European Cervids. Michael Stack, Veterinary Laboratories Agency, UK.
4. Detecting the Chronic Wasting Disease Agent in Hampshire County, West Virginia: The Correct Strategy or Just Bad Luck? James Crum, West Virginia Division of Natural Resources.
5. Wisconsin's Approach to CWD Detection and Monitoring: Efficacy and Challenges. Julie Langenberg, Wisconsin Department of Natural Resources
6. Surveillance for Chronic Wasting Disease in Wyoming. Terry Kreeger, Wyoming Game and Fish Department.

**CWD Diagnostics and Detection - 2 hour**

Session Chairs: Katherine O'Rourke ([korourke@vetmed.wsu.edu](mailto:korourke@vetmed.wsu.edu)) and Aru Balachandran (contact Dr. O'Rourke)

1. Transmission and Pathogenesis of Chronic Wasting Disease (CWD) in Cervid and Non-Cervid Species. Edward Hoover, Colorado State University.
2. Susceptibility of Domestic Cattle to Chronic Wasting Disease by Oral Inoculation and Natural Exposure: Final Phase of a 10-year Study. Donal O'Toole, University of Wyoming.
3. Scoring CWD Disease Progression and Predicting Accumulation Patterns of PrP<sup>CWD</sup> in Peripheral Tissues of Rocky Mountain Elk . Terry Spraker, Colorado State University
4. Utility of Rectal Biopsy for Preclinical Diagnosis of Chronic Wasting Disease in Free-Ranging Rocky Mountain Elk. Jenny Powers, National Park Service.
5. The Use of Recto-Anal Mucosa-Associated Lymphoid Tissue (RAMALT) for Diagnosis of CWD in White-Tailed Deer. Delwyn Keane, University of Wisconsin
6. Diagnosis of Preclinical CWD in Farmed White-Tailed Deer in Canada by the Immunohistochemical Examination of Rectal Biopsies. David Schneider, USDA, Agricultural Research Service
7. Diagnosis of Preclinical Sheep TSEs in Rectal Biopsies By ELISA: Overcoming "False Negative" Results. Lorenzo González, Veterinary Laboratory Agencies, Lasswade,UK

**Management and Control of CWD in Free-Ranging Cervids - 1.5 hour**

Session Chairs: Kerry Mower ([kerry.mower@state.nm.us](mailto:kerry.mower@state.nm.us)) and Julie Langenberg ([Julia.Langenberg@wisconsin.gov](mailto:Julia.Langenberg@wisconsin.gov))

1. CWD in Wild deer: Wildlife Agency Responses Across North America. Margo Pybus, Fish and Wildlife Division of Alberta Sustainable Resource.
2. Alberta's CWD One-Two Punch: Seek and Destroy. Margo Pybus, Fish and Wildlife Division of Alberta Sustainable Resource.
3. The Wisconsin Experience with CWD Management: Lessons Learned. Mike Samuel, Wisconsin Cooperative Wildlife Research Unit.
4. Sharpshooting Implementation and Efficacy in Management of CWD in Illinois. Paul Shelton, Illinois Department of Natural Resources.
5. Culling as an Approach to Chronic Wasting Disease Management. Lisa Wolfe, Colorado Division of Wildlife.

### **CWD and Cervid industry Issues - 1.5 Hour**

Session Chair: Kurt VerCauteren ([Kurt.C.Vercauteren@Aphis.USDA.Gov](mailto:Kurt.C.Vercauteren@Aphis.USDA.Gov))

1. Issues and Needs of the Captive Deer industry Relative to CWD. Shawn Schafer, North American Deer Farmers Association.
2. Impacts of CWD on the Elk industry and the Future. Joel Espe, North American Elk Breeders Association.
3. CWD Research at the Interface; At, In, and Around the Fence. Kurt VerCauteren, USDA/APHIS/WS/NWRC.
4. Woven-Wire Plus Electric: An Effective Means to Minimize Contact at Fencelines. Justin Fischer, USDA/APHIS/WS/NWRC.

### **Poster Session**

Session Chair: Brook Zscheile ([Brook.Zscheile@Aphis.USDA.Gov](mailto:Brook.Zscheile@Aphis.USDA.Gov))

1. 10 years of CWD Surveillance at Wind Cave National Park. Duane C. Weber, Wind Cave National Park.
2. Assessment of the Distribution and Prevalence of Chronic Wasting Disease in Hampshire County, West Virginia. Kevin Keel, The University of Georgia.
3. Biomarkers for CWD. Justin Jones, University of Wyoming.
4. Changing the Paradigm for Western Wyoming Elk Management in the Proximity of CWD. Lloyd Dorsey, Greater Yellowstone Coalition.
5. Chronic Wasting Disease Management in Saskatchewan: Our experience in the face of uncertainties. Yeen Ten Hwang, Saskatchewan Ministry of Environment
6. Chronic Wasting Disease Susceptibility of Four North American Rodents. Chad J. Johnson, University of Wisconsin.
7. Degradation of Pathogenic Prion Protein by an Acid Fungal Protease from *Aspergillus phoenicis*. Steven M. Biro, USGS National Wildlife Health Center.
8. Detecting Environmental Deposits of Chronic Wasting Disease Prions in Soil. A. Christy Wyckoff, Colorado State University.
9. Differential Characteristics of Experimental BSE and CWD in European Red Deer (*Cervus Elaphus Elaphus*). Stuart Martin, Veterinary Laboratories Agency (VLA-Lasswade), UK.
10. Dispersal of wild deer in southern Saskatchewan: Implications for spread of chronic wasting disease. Nicole Skelton, University of Saskatchewan.

11. Genetic Susceptibility to CWD in Free-Ranging White-Tailed Deer: Complement Component C1q and Prnp Polymorphisms. Julie A. Blanchong, University of Wisconsin.
12. Humic Acid Influences Pathogenic Prion Protein Sorption to Clay Particles. Christen M. Bell, University of Wisconsin.
13. Identification of Differentially Expressed Genes in Chronic Wasting Disease Infected Elk. Sandor C. Dudas, Canadian Food Inspection Agency.
14. Immortalized Deer Cell Lines for Antemortem Detection of Infectious Chronic Wasting Disease Prions. Brandt G. Cassidy, DNA Solutions, Inc.
15. *In Vitro* Strain Adaptation of CWD Prions Using Serial Protein Misfolding Cyclic Amplification. Crystal Meyerett, Colorado State University.
16. Interaction Between a Model Prion Protein and Organo-Mineral Complexes. Fabio Russo, Università di Napoli Federico II, Italy.
17. Interaction of a Model Prion Protein with Soil Humic, and Humic-Like Compounds. Fabio Russo, Università di Napoli Federico II, Italy.
18. Landscape Structure and Deer Distribution: Implications for Contact Rates and CWD. Thomas J. Habib, University of Alberta.
19. Model Prion Protein Adsorption on Native Organic Matter of Soil Aggregates. Amaranta Pucci, Istituto per lo Studio degli Ecosistemi, Italy.
20. Modeling Lateral CWD Transmission in the Environment Using Cervid and Bovine PrP-Expressing Mice. Theodore Johnson, Colorado State University.
21. Pathogenic Prion Protein is Degraded by a Serine Protease in Lichens. Christopher J. Johnson, USGS National Wildlife Health Center.
22. Degradation of the Pathogenic Prion Protein by a Manganese Mineral Found in Soils. Joel Pedersen, University of Wisconsin.
23. The Role of Complement Receptor CD21/35 in Murine Model of CWD. BA Michel, Colorado State University.
24. Potential Venison Exposure Among FoodNet Population Survey Respondents 2006-2007. Ryan Maddox, Prion Disease Office Centers for Disease Control and Prevention.
25. Comparison of Hunter Killed and Vehicle Killed White-Tailed Deer Sampled for Chronic Wasting Disease: Lessons for Surveillance. Jonathan Sleeman, Virginia Department of Game and Inland Fisheries.
26. Association Mapping of Genetic Risk Factors for Chronic Wasting Disease in Wild Deer. Tomomi Matsumoto, Department of Biological Sciences, University of Alberta, Edmonton.
27. Elk and Deer Use of Mineral Licks: Implications for Disease Transmission. Michael Lavelle, USDA APHIS NWRC Fort Collins, CO.
28. Breeding Behavior and Space Use of Male and Female Mule Deer: An Examination of Potential Risk Differences for Chronic Wasting Disease Infection. Leslie McFarlane, Utah Division of Wildlife Resources.
29. Efficacy of Alkaline Hydrolysis for Inactivation and Disposal of Prion-Positive Material. Ryan G. L. Murphy. Colorado State University.
30. Diagnosis of Preclinical Sheep TSEs in Rectal Biopsies By ELISA: Overcoming "False Negative" Results. Lorenzo González, Veterinary Laboratory Agencies, Lasswade, UK
31. Diagnosis of Preclinical CWD in Farmed White-Tailed Deer in Canada by the Immunohistochemical Examination of Rectal Biopsies. David Schneider, USDA, Agricultural Research Service.

32. Utility of Rectal Biopsy for Preclinical Diagnosis of Chronic Wasting Disease in Free-Ranging Rocky Mountain Elk. Jenny G. Powers, National Park Service.
33. The Use of Recto-Anal Mucosa-Associated Lymphoid Tissue (RAMALT) for Diagnosis of CWD in White-Tailed Deer (*Odocoileus virginianus*). Delwyn Keane, University of Wisconsin.