Scientific Program Schedule

Tuesday 13 May

OVERVIEW OF LEAD UPTAKE AND TOXICOSIS IN HUMANS AND WILDLIFE

8:30 a.m.  Welcome and Introductions

Mark Pokras  Understanding Lead Uptake and Physiological Effects across Species Lines: A Conservation Medicine Based Approach.

Jerome Nriagu  History in Lead and Lead Poisoning in History

Michael Kosnett  Health Effects of Low Dose Lead Exposure in Adults and Children: Management and Approaches to Prevention


Anton Scheuhammer  Historical Perspective on the Lead Shot and Lead Sinker Issues in Canada.

Rafael Mateo  Lead Poisoning in Wild Birds in Europe and the Regulations Adopted by Different Countries.

Deborah Pain, Ian Fisher, and Vernon Thomas  A Global Update of Lead Poisoning in Terrestrial Birds from Ammunition Sources.

LEAD EXPOSURE IN HUMANS FROM SPENT AMMUNITION

Lori Verbrugge, James Berner, and Angela Matz
Human Exposure to Lead from Ammunition in the Circumpolar North.

William E. Cornatzer, Edward F. Fogarty, Steven Pichard, and Eric W. Cornatzer
The Qualitative and Quantitative Analysis of Lead Fragments in Random Venison Packages Donated to the Community Action Food Centers of North Dakota in 2007.

Grainger Hunt, Richard Watson, J. Lindsay Oaks, and Russell Tucker
Lead Fragments in Venison.

Angela Matz and Paul Flint
Lead Isotopes Indicate Lead Shot Exposure in Alaska-breeding Waterfowl.

5:00 p.m. POSTER SESSION

Dominique Avery and Richard Watson
Distribution of Hunter Taken Game to Humanitarian Organizations.

Dominique Avery and Rick Watson
Regulation of Lead Ammunition for Wildlife and Humans Around the World.

Michelle Kneeland and Mark Pokras
Lead Objects Ingested by Common Loons in New England.

Richard Watson and Dominique Avery
Hunters and Anglers at Risk of Lead Exposure in the United States.

Molly Church, Karen Rosenthal, Donald R. Smith, Kathryn Parmentier, Ken Aron, and Dale Hoag
Blood Chemistry Values of California Condors Exposed to Lead.

Kay Neumann
Lead Poisoning in Iowa Wintering Bald Eagles.

Laurie Wilson, Barry Smith, Jennifer Bohannon, Mike Smith, and Anton Scheuhammer
Lead Poisoning of Trumpeter Swans in Pacific Northwest: Can Recovered Shot Pellets Elucidate the Source?
Tom Rogers, Bryan Bedrosian, Derek Craighead, Howard Quigley and Kerry Foresman
Lead Ingestion by Scavenging Carnivores in the Yellowstone Ecosystem.

Bryan Bedrosian, Chris Parish and Derek Craighead
Differences Between Blood Lead Level Detection Techniques: Analysis Within and Among Three Techniques and Avian Species.

Grainger Hunt, W. Burnham, C.N. Parish, K.K. Burnham, B. Mutch, and J.L. Oaks
Bullet Fragments in Deer Remains: Implications for Lead Exposure in Avian Scavengers.
Wednesday 14 May

LEAD EXPOSURE, SOURCES, AND TOXICOSIS IN WILDLIFE

8:30 a.m.  Introduction

Michael Smith, Davison M, Schexnider CM, Wilson L, Bohannon J, Grassley JM, Jordan M, and CE Grue
Lead Shot Poisoning in Swans: Sources of Pellets within Whatcom County, WA and Sumas Prairie, B.C.

J. Christian Franson, Scott P. Hansen, and John H, Schulz
Lead Exposure in Mourning Doves: Results of a Field Survey and Comparisons with Experimental Findings.

John Schulz, Xiaoming Gao, Joshua J. Millspaugh, and Alex J. Bermudez
Acute Lead Toxicosis and Experimental Lead Pellet Ingestion in Mourning Doves.

R. Justin Bingham, Randy T. Larsen, John A. Bissonette, and Jerran T. Flinders
Causes and Consequences of Ingested Lead Pellets in Chukars.

Sean M. Strom, Julie A. Langenberg, Nancy K. Businga, and Jasmine K. Batten
Lead Exposure in Wisconsin Birds.

Derek Craighead and Bryan Bedrosian
Relationships Between Blood Lead Levels in Common Ravens and the Hunting Seasons in the Southern Yellowstone Ecosystem.

Lead Poisoning in White-tailed Sea Eagles (Haliaeetus albicilla): Causes and Approaches to Solutions.

Patrick T. Redig, Luis Cruz-Martinez, and Donald R. Smith
Lead Poisoning in Bald Eagles: Analysis of Possible Lead Sources, a Retrospective Study.

Bryan Bedrosian and Derek Craighead
Blood Lead Levels of Bald and Golden Eagles Sampled During and After Hunting Seasons in the Greater Yellowstone Ecosystem.

BOLD denotes Presenter
Robert Domenech and Heiko Langner
Blood Lead Levels of Fall Migrant Golden Eagles in West-Central Montana.

Miguel D. Saggese, Agustín Quaglia, Sergio Lambertucci,
Maria Susana Bo, Jose H Sarasola, Roberto Pereyra, and
Juan J Maceda
Survey of Lead Toxicosis in Free-ranging Raptors from Central Argentina.

Robert M. Stephens, Aran S. Johnson, Regan E. Plumb,
Kimberly K. Dickerson, Mark McKinstry and
Stanley H. Anderson
Secondary Lead Poisoning in Raptors from Scavenging Shot Black-tailed Prairie Dogs.

Juan Manuel Blanco, Ursula Höfle, Julia Rodríguez-Ramos,
Elena Crespo and Valeria Perez
Lead in Griffon and Cinereous vultures in Central Spain: Correlating Clinical Signs and Blood Lead Levels.

Laura Gangoso, Pedro Álvarez-Lloret, Alejandro Rodríguez-Navarro, Rafael Mateo, Fernando Hiraldo and
José Antonio Donázar
Long-term Effects of Lead Poisoning on Bone Mineralization in Egyptian Vulture Neophron percnopterus.

James R. Petterson, Kelly J. Sorenson, Court VanTassell,
Joe Burnett, Scott Scherbinski, Alacia Welch and
Sayre Flannagan.
Blood Lead Concentrations in California Condors Released at Pinnacles National Monument, California.

Michael Wallace and Jeffery Zuba
Lead Poisoning in California Condors Released to the Wild in Baja California, Mexico.

Christopher Parish, W. Grainger Hunt, Edward Feltes, Ron Seig and
Kathy Orr
Lead Exposure Among a Reintroduced Population of California Condors in Northern Arizona and Southern Utah.

Rhys E. Green, Grainger Hunt, Chris Parish and Ian Newton
Modeling Blood Lead Concentration and Exposure in Free-ranging California Condors in Arizona and Utah

John Chesley, Peter Reinthal, Chris Parish, Kathy Sullivan and
Ron Sieg
Direct Evidence for the Source of Lead Contamination within the California Condor.
Thursday 15 May

LEAD EXPOSURE, SOURCES, AND TOXICOSIS IN WILDLIFE

8:30 a.m.  Introduction

**Michael Fry**, Kelly Sorenson, Jesse Grantham, Joseph Burnett, Joseph Brandt and Michaela Koenig
Lead Intoxication Kinetics in Condors from California.

**Kathryn Parmentier**, Roberto Gwiazda, Joe Burnett, Kelly Sorenson, Scott Scherbinski, Court VanTassell, Alacia Welch, Michaela Koenig, Joseph Brandt, Jim Petterson, Jesse Grantham, Bob Risebrough and Don Smith
Feather Pb Isotopes Reflect Exposure History and ALAD Inhibition Shows Sub-clinical Toxicity in California Condors.

**Erica H. Craig**, Tim H. Craig, Falk Huettmann and Mark R. Fuller
Use of Machine Learning Algorithms to Predict the Incidence of Lead in Golden Eagles.

**Keisuke Saito**
Lead Poisoning of Steller’s Sea Eagle (*Haliaeetus pelagicus*) and White-tailed Eagle (*Haliaeetus albicilla*) Caused by the Ingestion of Lead Bullets and Slugs, in Hokkaido, Japan.

REMEDIATION OF LEAD EXPOSURE FROM SPENT AMMUNITION

**Victor Oltrogge**
Non-lead bullets

**John H. Schulz**, Ronald A. Reitz, Steven L. Sheriff, Joshua J. Millspaugh and Paul I. Padding
Small Game Hunter Attitudes Toward Nontoxic Shot, and Crippling Rates with Nontoxic Shot.

**Molly A. Tranel**, Richard Kimmel and William Penning
Including Private Sectors in Developing Nontoxic Shot Alternatives for Upland Hunting in Minnesota

**John H. Schulz**, Joshua J. Millspaugh and Larry D. Vangilder
Considerations for a Mourning Dove Nontoxic Shot Regulation

**Ron Sieg**, Kathy A. Sullivan and Chris N. Parish
Voluntary Lead Reduction Efforts within the Northern Arizona Range of the California Condor

**BOLD** denotes Presenter
Vernon G. Thomas
The Policy and Legislative Dimensions of Nontoxic Ammunition Use in North America

Kimberly Titus and Terry Haynes
The Importance of Moose, Caribou, and Deer in the Diet of Alaskans

EXPERT PANEL: SUMMARY AND DISCUSSION OF RESEARCH NEEDS AND REMEDIATION OF LEAD EXPOSURE FROM SPENT AMMUNITION IN WILDLIFE AND HUMANS

Panel Members: John Freemuth, Milton Friend, Deborah Pain, Mark Pokras, Tony Scheuhammer, Vernon Thomas, Lori Verbrugge

Panel Presentations
Panel Questions, Discussion, and Resolutions

Closing Remarks