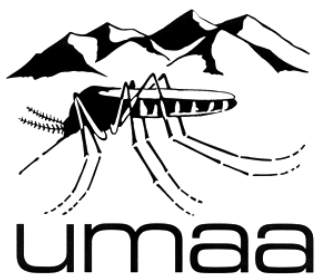

67th
ANNUAL CONFERENCE
OF THE
UTAH MOSQUITO ABATEMENT
ASSOCIATION



Davis Conference Center
1651 North 700 West
Layton, Utah 84041

October 5 - 7, 2014



Lewis Thomas Nielsen, PhD
August 6, 1920 – July 25, 2014

Dr. Lewis Thomas Nielsen ('Lew') passed away on July 25, 2014. Ironically, he died one year to the day following the death of his favorite graduate student and close friend Dr. Steven Voss Romney.

'Lew' was born and lived his whole life in Salt Lake City. He graduated from South High School in 1937. Later that year he began his first year as an undergraduate student at the University of Utah. As 'Lew' wrote in his personal history, 'I had to get a job to pay for my tuition.' Dr. Don M. Rees, a professor in biology and 'father' of Utah mosquito abatement, had submitted a request for a work study student to work in his lab. 'Lew' describes this as a pivotal factor in his career. Dr. Rees put 'Lew' to work doing the tedious job of pinning adult mosquitoes. During the summer months, 'Lew' worked for the Salt Lake City Mosquito Abatement District. Between the two jobs he was able to pay his university tuition and launched his lifelong love for the study of mosquitoes.

'Lew' completed his Bachelor of Arts degree in 1941. He had started work on his master's degree when he received his draft notice in the spring of 1942. He entered the Army as a private, but shortly after basic training, was sent to officer candidate school. When he was discharged in 1945, he had the rank of first lieutenant.

After WWII, 'Lew' returned to his studies at the University of Utah, where he finished his Master of Arts degree in 1947. The title of his thesis was, 'On the Biology of *Aedes dorsalis*.' 'Lew' continued his studies at the 'U' under the direction of Dr. Don M. Rees, and completed his Doctor of Philosophy degree in 1955. The title of his dissertation was, 'The Taxonomy and Control of Rocky Mountain *Aedes* Mosquito Species.'

Dr. Nielsen remained at the University as a Professor of Biology from 1955 to 1989. During that time, he was the mentor to 29 masters and 10 doctors of philosophy students. Dr. Nielsen was the author of 82 scientific articles and one National Geographic article.

He described two new mosquito species, *Aedes laguna*, Nielsen & Arnell and *Ochlerotatus dahliae*. He had a mosquito named after him, *Aedes atropalpus nielseni*, as well as a mosquito subgenus *Lewnielseni*.

Dr. Nielsen served twice as the Utah Mosquito Abatement Association President, 1957 and 1990. He was awarded the UMAA Don M. Rees Award in 1988 and the Meritorious Service Award in 2005. He served as the President of the American Mosquito Control Association in 1978. The AMCA recognized Dr. Nielsen with Honorary Membership in 1994 and he received the Belkin Award in 2000.

Dr. Lewis Thomas Nielsen will be remembered for many things, but the members of the UMAA we will remember him as a friend and mentor.

PROGRAM SUMMARY

Sunday, October 5, 2014

3:00 – 6:30 pm	Registration
3:00 – 7:00 pm	Exhibitor Setup Twilight Ballroom
6:30 pm	UMAA Board Meeting Aurora Board Room
8:00 pm	President's Reception Twilight Ballroom

Monday, October 6, 2014

7:30 am	Registration
8:30 am	Plenary Session Meridian AEF
10:20 am	Break
10:40 am	Door Prize Drawing
10:50 am	General Session Meridian AEF
Noon	Lunch – Meridian BCG
1:30 pm	General Session Meridian AEF
3:05 pm	Break
3:20 pm	Door Prize Drawing
3:30 pm	General Session Meridian AEF
5:15 pm	Adjourn
7:00 pm	Banquet – Meridian BCG

Tuesday, October 7, 2014

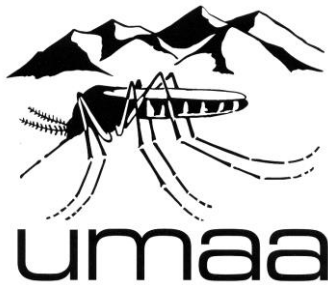
8:00 am	General Session Meridian AE
8:00 am	Trustee Session Meridian H
9:45 am	Break
10:15 am	General Session Meridian AE
10:15 am	Trustee Session
12:05 pm	Adjourn
12:15 pm	UMAA Annual Business Meeting Aurora Board Room

WELCOME TO THE

67th

ANNUAL CONFERENCE

OF THE



UTAH MOSQUITO ABATEMENT
ASSOCIATION

CONFERENCE HOST

Mosquito Abatement District - Davis
Gary Hatch, Manager

MEETING LOCATION

Davis Conference Center

1651 North 700 West
Layton, Utah 84041
October 5 - 7, 2014

UMAA OFFICERS AND BOARD OF DIRECTORS

President

Eldon Rowley

Val Bowlden

Scott Bradshaw

President-Elect

Bryan Stephens

Bill Cox

Sammie Dickson

Vice-President

Bill Cox

Gary Hatch

Mike Johnson

Secretary/Treasurer

Eldon Rowley

Ryan Lusty

Robert Mower

Gary Nielson

Past President

Mario Boisvert

Robert Phillips

Richard Rigby

Kirk Robbins

Executive Director

Randel Sessions

Eldon Rowley

Mike Seely

Randel Sessions

Mark Stewart

Directors

Sean Amodt

Joe Archer

Ryan Arkoudas

Bryan Stephens

Tamara Twitchell

Terrie Wierenga

Kay Weight

Cory Worwood

UMAA COMMITTEE CHAIRMEN

Auditing

Bill Cox

Nominating

Ryan Lusty

Awards

Ryan Lusty

Operational

Brian Hougaard

Computer/Data

Processing

Gary Hatch

Pesticides

Sammie Dickson

Encephalitis Surveillance

Gary Hatch

Policy, Finance & Bylaws

Bill Cox

Environmental Impact

Randel Sessions

Program

Bryan Stephens

Legislative &

Resolutions

Bill Cox

Publications

Sammie L. Dickson

Local Arrangements

Gary Hatch

Public Education

Gary Hatch

Newsletter

Randel Sessions

Mosquito Control-

Fish & Wildlife Mgmt.

Coordination

Kirk Robbins

Monday Morning

October 6, 2014

Plenary Session

Meridian AEF

Moderator: **Eldon Rowley, UMAA President**

8:30 Call to Order & Announcements, **Eldon Rowley**,
UMAA President and Manager, West Millard
Mosquito Abatement District, Delta, UT

8:40 Welcome to the 67th Annual Meeting in Layton, Utah,
Davis County Commissioner

8:50 Welcome to the Davis Conference Center: **Jeanie
Bosen**

8:55 Remembering Lewis T. Nielsen, PhD: **Sammie Lee
Dickson, PhD**, Manager, Salt Lake City Mosquito
Abatement District

9:15 Introduction of Keynote Speaker: **Bryan Stephens**,
UMAA President-Elect, and Manager, Summit
Mosquito Abatement District

9:20 **Keynote Address:** "An Unusual Fondness for
Mosquitoes (and Others That Suck Our Blood),"
Robert Hancock, PhD, Associate Professor of
Biology, Metropolitan State University of Denver

10:20 **Break**
Door Prize Drawing @ 10:40

10:50 AMCA Updates: **Joseph Conlon**, Technical Advisor,
American Mosquito Control Association

11:00 "The Bridge on the River Kwai: The Man, The
Bridge", **Joseph Conlon**

11:45 Nominations: **Ryan Lusty**, Manager, Magna
Mosquito Abatement District, Magna, UT

Noon **Lunch**
Meridian BCG

Monday Afternoon

October 6, 2014

General Session

Meridian AEF

Moderator: **Bryan Stephens**, UMAA President-Elect

- 1:30 "Legal Duties and Your Entity," **David Church**, Legal Counsel for Utah Local Government Trust
- 2:00 "Laboratory Selection of Resistance to Methoprene in Culex Mosquitoes," **Scott Berhardt, PhD**, Assistant Professor of Public Health, Utah State University
- 2:15 "California Invasion of *Aedes aegypti*," **Jodi Holeman**, Scientific-Technical Services Director, Consolidated Mosquito Abatement District
- 2:35 "Building Employees & Culture," **Todd Beutler**, General Manager, Cache Valley Transit District
- 3:05 **Break**
Door Prize Drawing @ 3:20
- 3:30 "Arthropod Borne Diseases in Animals," **Dr. Warren Hess**, Acting State Veterinarian, Utah Department of Agriculture and Food
- 3:45 "The Pesticide Permit: Who Needs It?" **Don Hall**, Environmental Scientist, Utah Department of Water Quality
- 4:15 "Bald Eagles and West Nile Virus: Winter of 2013-2014," **Gary Hatch**, Manager, Mosquito Abatement District – Davis
- 4:30 "The Rise of Invasives and Decline of Natives: A Primer on the Asian Tiger Mosquito and Operational Mosquito Control Challenges," **Ary Faraji, PhD**, Assistant Manager/Biologist, Salt Lake City Mosquito Abatement District
- 4:45 "Accidents Happen: What Now?" **Scott Bradshaw**, Manager, Tooele Valley Mosquito Abatement District
- 5:00 "Personal Experience with Chikungunya in the Dominican Republic," **Steven Fowles**
- 5:15 **Adjourn**

Monday Evening AWARDS BANQUET

7:00 PM

Meridian BCG

Tuesday Morning

October 7, 2014

General Session Meridian AE

Moderator: **Bill Cox**, UMAA Vice President

- 8:00 "Field Application of VBC 60394 on a Wetland Habitat," **Jason Hardman**, Rural Field Supervisor, Salt Lake City Mosquito Abatement District
- 8:15 "Bee Health, Be Helpful," **Gordon Morrison**, Business Manager, Vector Control and Farm Hygiene, Bayer Crop Science LP
- 8:30 "A Local Health Department Perspective on Diseases Spread by Mosquitoes," **Louise Saw, MPH**, Epidemiologist for Southwest and Central Utah
- 8:45 "West Nile Virus Surveillance in Utah," **Rebecca Ward**, Health Educator, Utah Department of Health, Bureau of Epidemiology
- 9:00 "DeltaGard® Public Health Insecticide Efficacy Trial in Mesa County, Colorado", **Steve DeFeyer**, New Product Consultant, Grand River Mosquito Control District
- 9:15 "Keeping Up with the UDAF Pesticide Program," **Scott Oldham**, Pesticide Program Manager, Utah Department of Agriculture and Food
- 9:30 "Development of a Multiplex PCR Assay to Analyze Mosquito Blood Meals," **Janice Sugiyama, PhD**, Director, Biotechnology Research, Utah Valley University
- 9:45 **Break**
- 10:15 "Exploring New Paradigms in Mosquito Control: An introduction to NutriVex," **Jennifer L. Mason**, Senior Partner, Mason and Associates
- 10:30 "Testing Results of MicroMix," **Sean Amoldt**, Manager, Southwest Mosquito Abatement District
- 10:45 "Development and Introduction of a New Active Ingredient for ULV Application to Control Adult Mosquitoes in the United States," **Gordon Morrison**, Business Manager, Vector Control and Farm Hygiene, Bayer Crop Science LP
- 11:00 Assessment of Non-Mosquito Diptera as Potential Vectors of Viruses in Utah," **Bob Phillips**, Manager, Moab Mosquito Abatement District
- 11:20 "Two Hundred Acres of West Nile Virus," **Ryan Lusty**, Manager, Magna Mosquito Abatement District
- 11:35 "Understanding Natular and its Formulations," **Drew Hunter**, Control Consultant, Clarke

11:50 "First Year Transition from Paper to iPads," **Danny Miller**, Utah County Health Department, Mosquito Abatement Division

12:05 **Adjourn**

Tuesday Morning
October 7, 2014
Trustee's Session
Meridian H

Moderator: **Bryan Stephens**, UMAA President-Elect

8:00 Trustee Training—Part 1: Governance (Roundtable Discussion)

LeGrand Bitter, Executive Director, Utah Association of Special Districts
Sammie Dickson, PhD, Manager, Salt Lake City Mosquito Abatement District
Ryan Roberts, Supervisor, Local Government Division, State Auditor's Office

9:45 **Break**

10:15 Trustee Training—Part 2: Financial (Roundtable Discussion)

LeGrand Bitter, Executive Director, Utah Association of Special Districts
Sammie Dickson, PhD, Manager, Salt Lake City Mosquito Abatement District
Ryan Roberts, Supervisor, Local Government Division, State Auditor's Office

12:05 **Adjourn**

12:15 **UMAA Annual Business Meeting**,
Aurora Board Room

2014 UMAA SUSTAINING MEMBERS

ADAPCO INC.

Gale Jirik
550 Aero Lane
Sanford, FL 32771
(800) 367-0659
(505) 366-7989 Cell
gjirik@myadapco.com

AMVAC

Peter Connelly
751 West Ocracoke Sq. SW
Vero Beach, FL 32968
(772) 563-0606
peterc@amvac-chemical.com

BAYER ENVIRONMENTAL SCIENCE

Gordon Morrison
2 T.W. Alexander Drive
Research Triangle Park, NC 07709
(919) 549-2535
gordon.morrison@bayer.com

CENTRAL LIFE SCIENCES, INC.

Blaine Oakeson
1091 N 3500 W
Marriott-Slaterville, UT, 84404
(801) 389-0867 M
boakeson@central.com

CLARKE

Drew Hunter
1278 29th CT NW
Salem, OR, 97304
(503) 505-4197 M
dhunt@clarke.com

ELECTRONIC DATA SOLUTIONS

Ryan Pierson
PO Box 31
Jerome, ID, 83338
(208) 324-8006
(208) 358-1142 M
elecdata@elecdata.com

UNIVAR ENVIRONMENTAL SCIENCES

TJ Shelby
650 W. 800 S.
Salt Lake City, UT 84104-1026
(801) 884-8579 M
tj.shelby@univarusa.com

UTAH LOCAL GOVERNMENTS TRUST

Travis Garton
55 South Hwy 89
North Salt Lake, UT 84054-2504
(801) 936-6400
(800) 748-4440
travis@utahtrust.gov

VALENT BIOSCIENCES

Stephanie Whitman
1450 North 45th Street
Laramie, WY 82072
(307) 721-4335
(307) 399-1732 M
Stephanie.Whitman@valent.com

VECTOR DISEASE CONTROL, LLC (VDCI)

Malcom Williams
1320 Brookwood Dr. Suite H
Little Rock AR 72202
(501) 280-0220
mwilliams@vdcil.net

**SUSTAINING MEMBERS
SPONSORING
SPECIAL FUNCTIONS**

PRESIDENT'S RECEPTION

VALENT BIOSCIENCES



LUNCHEON

CLARKE

UTAH LOCAL GOVERNMENTS TRUST

CENTRAL LIFE SCIENCES, INC.

BAYER ENVIRONMENTAL SCIENCE



BREAKS

ADAPCO

AMVAC

UNIVAR ENVIRONMENTAL SCIENCES



PRINTING OF PROGRAM

**VECTOR DISEASE CONTROL
INTERNATIONAL**



DOOR PRIZES

To Be Announced When Prizes Are Given Out

NOTES

Past Presidents

1948	Don M. Rees	1981	Dennis Hunter
1949	Don M. Rees	1982	Elmer Kingsford
1950	Don M. Rees	1983	Robert Brand
1951	Don M. Rees	1984	Steven Romney
1952	O. W. Young	1985	James Nielsen
1953	Theodore Schoenfeld	1986	Lewis Marrott
1954	O.C. Finley	1987	Kenneth Minson
1955	Howard Widdison	1988	Sammie Dickson
1956	Delore Nichols	1989	Kay Weight
1957	Jay E. Graham	1990	Lewis Nielsen
1958	Lewis Nielsen	1991	Doug Brown
1959	Lewis Fronk	1992	John Jausi
1960	Karl Josephson	1993	Keith Wagstaff
1961	Morris Swapp	1994	Evan Lusty
1962	Glen C. Collett	1995	Bruce Bennett
1963	George F. Knowlton	1996	Steven Romney
1964	Henry Beckstead	1997	Gary Hatch
1965	D. Elden Beck	1998	Dennis Kiyoguchi
1966	Lewis Fronk	1999	Gordon Wheeler
1967	Larry Nielsen	2000	Randel Sessions
1968	Kendall Sedgewick	2001	Robert Brand
1969	Karl Josephson	2002	Brian Hougaard
1970	William Wright	2003	Val Bowlden
1971	Reed Roberts	2004	Eldon Rowley
1972	Lee Kay	2005	Kirk Robbins
1973	Wilford Egbert	2006	Ryan Arkoudas
1974	Carl D. Clark	2007	Mike Oldham
1975	Don M. Rees	2008	Sammie Dickson
1976	Earl Jenne	2009	Robert Mower
1977	Larry Nielsen	2010	John Johnson
1978	Evan Lusty	2011	Ryan Lusty
1979	Keith Wagstaff	2012	Tyson Packer
1980	Wanless Southwick	2013	Mario Boisvert