AMERICAN ASSOCIATION OF ZOO VETERINARIANS

2014 CONFERENCE

October 18-24

Concurrent with

ASSOCIATION OF REPTILIAN AND AMPHIBIAN VETERINARIANS

October 19-23

And

ASSOCIATION OF EXOTIC MAMMAL VETERINARIANS

October 19-23
Orlando, Florida

Hosted by

Disney’s Animals, Science, and Environment
AMERICAN ASSOCIATION OF ZOO VETERINARIANS
2014 PROGRAM COMMITTEE

SCIENTIFIC PROGRAM COMMITTEE
President Elect  Meg Sutherland-Smith, DVM, DACZM
Vice President  Kelly Helmick, DVM, DACZM
Committee Chair  Mike Adkesson, DVM, DACZM
Committee Co-Chair  Jessica Siegal-Willott, DVM, DACZM
Program Chair  Deena Brenner, DVM, DACZM
Workshop Chair  Susan Bartlett, DVM, DACZM
Workshop Co-Chair  Allison Tuttle, DVM, DACZM
Poster Session Chair  Debbie Myers, DVM, DACZM
Poster Session Co-Chair  Tim Georoff, VMD, DACZM
EAMCP Chair  Debbie Myers, DVM, DACZM

Meeting Coordinators  Robert Hilsenroth, DVM, Executive Director
Adine Nicholson, Director of Development
Conference Registrar  Pam Brownlee, Administrative Assistant
Exhibits Coordinator  Julie Fazlollah
Local Host  Scott Terrell, DVM, DACZM
Deidre Fontenot, DVM
Carlos Rodriguez, DVM, DACVP

AAZV OFFICERS
2013-2014
President  Doug Armstrong, DVM
President Elect  Meg Sutherland-Smith, DVM, DACZM
Vice President  Kelly Helmick, DVM, DACZM
Treasurer  Chris Hanley, DVM, DACZM
Secretary  Scott Larsen, DVM, DACZM
Immediate Past President  Paul Calle, VMD, DACZM
Executive Director  Robert Hilsenroth, DVM

ASSOCIATION OF REPTILIAN AND AMPHIBIAN VETERINARIANS
2014 PROGRAM COMMITTEE
Program Chair  David Hannon, DVM
Workshop Chair  Katie Heinz-Taheny, DVM, PhD
President  Rachel E. Marschang, PD Dr. vet.med.
          Dana Varble, DVM, DECAM
          Colin McDermott, VMD
Executive Director  Wilbur B. Amand, VMD
Conference Registrar  Rachel Schwien
Exhibitor Coordinator  Julie Fazlollah
Proceedings Editor  Charlotte Kirk Baer
ARAV OFFICERS  
2013-2014

President
Rachel E. Marschang, PD Dr. med.vet., DECAM
President-Elect
David Hannon, DVM
Vice President
Katie Heinz-Taheny, DVM, PhD
Secretary
Susan Horton, DVM
Treasurer
Todd Gray, DVM
Immed. Past President
Dana Varble, DVM
Member-at-Large
Nicole Johnson, DVM
Adolf Maas, DVM
Kimberlee Wojick, DVM
Paolo Selleri, DVM
Executive Director
Wilbur B. Amand, VMD

ASSOCIATION OF EXOTIC MAMMAL VETERINARIANS  
2014 PROGRAM COMMITTEE

Conference Chair
Jörg Mayer, DMV, DABVP, DECZM, DACZM
Conference Coordinators
Melissa Kling, DVM
Eileen Cooke
Marisa Hackemann
Conference Registrar
Rachel Schwien
Exhibits Coordinator
Julie Fazlollah

AEMV OFFICERS  
2013-2014

President
Chris Griffin, DVM, DABVP
President Elect
Dan Johnson, DVM, DABVP
Treasurer
Micah Kohles, MPA, DVM
Secretary
Melissa King, DVM
Executive Director
Marisa Hackemann
Immediate Past President
Jörg Mayer, DMV, DABVP, DECZM, DACZM
Immediate Past Executive Director
Melissa King, DVM
Board Members
Angela Lennox, DVM, DABVP, DABVP
Drury Reavill, DVM, DABVP, DABVP, DACVP
Peter Fisher, DVM, DABVP
GENERAL SESSION CHAIRS

AAZV SESSIONS
Behavioral Management: Therapeutics and Training  Leigh Clayton and Marion Desmarchelier
Common Ground: AZA and AAZV  Pam Dennis and Diana Boon
Conservation: Bear Focus  Wynona Shellabarger and Randi Myerson
Emergency, Critical Care and Advanced Techniques  Russ Burn and Sathya Chinnadurai
Epidemiology of Disease in Wild and Zoo Populations  Matt Allender and Jenny Waldoch
One Health: Linking Human, Animal and Environmental Health  Terra Kelly and Sharon Deem
Predator-Prey: Carnivores and Hoofstock  Maren Connolly and Dominique Keller
Preventative Medicine, Nutrition and Vaccine Strategies  John Sykes
The Art of Anesthesia and Sedation  Luis Padilla and Peter Black
Tips, Tricks, and Case Reports  Copper Aitken-Palmer and Sam Rivera
Topics in Avian Medicine  Javier Nevarezl and Gretchen Cole
Waterworld: Clinical Aquatic Medicine and Management of Life Support Systems  Michele Davis and Eric Anderson
Zoo Careers  Lauren Howard and Ginger Sturgeon

ARAV SESSIONS
Case Reports  Adolf Maas and Byron de la Navarre
Clinical Techniques  Steve Divers and Bruce Bogoslavski
Diagnostics & Imaging  Lionel Schilliger and Kristi Krause
Fish Medicine  Leigh Clayton and Heather Bjornebo
In Depth Session  Stacey Leonatti Wilkinson
Infectious Diseases  David Hannon and Anneliese Strunk
Master Classes  Jill Heatley and Karina Mathes
Mixed Bag  Richard Funk and Nicola Di Girolamo
Pharmacology  La’Toya Latney and Francisca Scheelings
Physiology & Conservation  Ken Harkewicz and Charles Innis

AEMV SESSIONS
Case Reports Surgery  Angela Lennox
Case Series  David Eshar
Endoscopy  Dan Johnson
General Session  Nico Schoemaker
GI Topics  Jennifer Graham
Imaging  Peter Fisher
Lesions, Small and Large  Dan Johnson
Medicine  Paollo Selleri
Mixed Bag  Yvonne van Zeeland
New Ideas & Procedures  Laila Proenca
Pathology  Drury Reavill
Research  Chris Griffin
Single Case Reports  Chris Griffin

JOINT SESSION
ARAV/AEMV  Diane McClure(ARAV) & Micah Kohles (AEMV)
ACKNOWLEDGMENTS

The organizations wish to recognize and thank the following individuals and companies for their donations of time, funds, or products and services which have contributed to the success of this year’s conference:

AAZV

Abaxis http://www.abaxis.com/veterinary/
American College Zoological Medicine www.aczm.org
Animal Necessity, LLC www.animalnecessity.com
Boomer Ball http://boomerball.com
Center for Elephant Conservation http://www.elephantcenter.com
Dan-Inject ApS http://daninjectdartguns.com
Disney’s Animal, Sciences and Environment http://thewaltdisneycompany.com
Ellman, A Cynosure Company www.ellman.com
Kirkpatrick Foundation http://kirkpatrickfoundation.com
Mazuri www.mazuri.com
Morris Animal Foundation http://www.morrisonanimalfoundation.org
Sustainable Swine Resources www.sustainableswineresources.com
Veterinary Information Network (VIN) http://www.vin.com
Betty White
Wildlife Conservation Society www.wcs.org
Wildlife Pharmaceuticals www.zoopharm.net
ZuPreem www.zupreem.com; www.vetspecialtyproducts.com

ARAV/AEMV

Oxbow Animal Health http://www.oxbowanimalhealth.com/
University of Miami Wildlife Lab http://cpl.med.miami.edu/avian-and-wildlife/
Zoo & Exotic Pathology http://zooexotic.com/

AEMV

CBI-Charles Brungart, Inc. www.cbidental.com
Lafeber/Emerald www.Lafeber.com
MDS-VET http://www.mdsvet.com
RICA Surgical Products www.ncasurgical.com
Surgitel www.SurgiTel.com
Universal Surgical http://universalsurgical.com/
Virbac Animal Health http://www.virbacvvet.com/
VSP - Veterinary Specialty Product http://vetspecialtyproducts.com
# TABLE OF CONTENTS

AAZV Program Committee & Officers ........................................... i
ARAV Program Committee & Officers ........................................... i
AEMV Program Committee & Officers ......................................... ii
General Session Chairs .......................................................... iii
Summary of Activities
Scientific Meeting ..................................................................... 3
Workshops ................................................................................. 5
Business/Committee/Other Meetings ......................................... 7
Special Events and Activities ..................................................... 8
Scientific Program ..................................................................... 9

## AAZV

**Monday**

**Morning**
- One Health: Linking Human, Animal and Environmental Health ...... 9
- Topics in Avian Medicine ....................................................... 10

**Afternoon**
- The Art of Anesthesia and Sedation ....................................... 11
- Advanced Topic: Infertility Workshop ..................................... 12

**Tuesday**

**Morning**
- Waterworld: Clinical Aquatic Medicine and Management of Life Support Systems .................................................. 13
- Emergency, Critical Care and Advanced Techniques ................ 14

**Wednesday**

**Morning**
- Common Ground: AZA and AAZV ........................................ 15
- Panel Discussion ................................................................... 15

**Afternoon**
- Featured Speaker: Jill Allread ............................................... 16
- Conservation: Bear Focus ..................................................... 16

**Thursday**

**Morning**
- Tips, Tricks, and Case Reports ............................................. 18
- Predator-Prey: Carnivores and Hoofstock ............................. 19
- Behavioral Management: Therapeutics and Training (Concurrent Session) ...................................................... 19

**Afternoon**
- Epidemiology of Disease in Wild and Zoo Populations ............ 20
- Zoo Careers ........................................................................ 21
- Featured Speaker: Sathya Chinnadurai (Concurrent Session) ... 21
- Featured Speaker: Dave Fagan (Concurrent Session) ............... 21
- Preventative Medicine, Nutrition and Vaccine Strategies (Concurrent Session) .................................................. 22

**Friday**

**Morning**
- Advanced Topics ................................................................ 23

## ARAV

**Monday**

**Morning**
- Infectious Diseases ............................................................ 24
Afternoon
Physiology & Conservation ........................................ 25
Clinical Techniques .................................................. 26

Tuesday
Morning
Mixed Bag ............................................................... 27
ARAV/AEMV Joint Session .......................................... 27

Wednesday
Morning
ARAV Master Classes ............................................... 29
ARAV Pharmacology ................................................ 29
Afternoon
ARAV In Depth Session ............................................. 30

Thursday
Morning
Case Reports .......................................................... 31
Fish Medicine .......................................................... 32
Afternoon
Diagnostics & Imaging ............................................... 32

AEMV
Monday
Morning
Research ................................................................. 34
New Ideas & Procedures ............................................. 35
Afternoon
Imaging .................................................................. 35
Case Reports Surgery ............................................... 36

Tuesday
Morning
General Session ........................................................ 37
ARAV/AEMV Joint Session .......................................... 37

Wednesday
Morning
Mixed Bag ............................................................... 39
GI Topics ................................................................. 39
Afternoon
Lesions, Small and Large ......................................... 39
Endoscopy ................................................................. 40

Thursday
Morning
Medicine ................................................................. 41
Case Reports: Series ................................................ 41
Afternoon
Single Case Reports .................................................. 42
Pathology ................................................................. 42

Posters .................................................................. 44
Exhibitors ................................................................. 48
Emil P Dolensek Award Recipients ................................ 50
Duane Ullrey Award Recipients .................................... 50
AAZV Past Presidents/AAZV Future Meetings .............. 51
ARAV Past Presidents/ARAV Future Meetings .............. 53
AEMV Past Presidents/AEMV Future Meetings .............. 54
### SUMMARY OF ACTIVITIES

#### SCIENTIFIC MEETING

<table>
<thead>
<tr>
<th>Conference</th>
<th>Registration Area</th>
<th>Days</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAZV CONFERENCE REGISTRATION</td>
<td>South Registration</td>
<td>Friday</td>
<td>3:00 - 9:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Saturday</td>
<td>7:00 am - 9:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Sunday</td>
<td>7:00 am - 7:30 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Monday</td>
<td>7:00 am - 7:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Tuesday</td>
<td>7:00 am - 12:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Wednesday</td>
<td>7:00 am - 6:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Thursday</td>
<td>7:00 am - 5:00 pm</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Friday</td>
<td>7:00 am - 12:00 pm</td>
</tr>
</tbody>
</table>

| ARAV CONFERENCE REGISTRATION | South Registration | Saturday                          | 1:00 pm - 8:00 pm   |
|                             |                   | Sunday                            | 6:30 am - 6:00 pm   |
|                             |                   | Monday                            | 7:00 am - 6:00 pm   |
|                             |                   | Tuesday                           | 7:00 am - 12:00 pm  |
|                             |                   | Wednesday                         | 7:00 am - 5:00 pm   |

| AEMV CONFERENCE REGISTRATION | South Registration | Saturday                          | 1:00 pm - 8:00 pm   |
|                             |                   | Sunday                            | 6:30 am - 6:00 pm   |
|                             |                   | Monday                            | 7:00 am - 6:00 pm   |
|                             |                   | Tuesday                           | 7:00 am - 12:00 pm  |
|                             |                   | Wednesday                         | 7:00 am - 5:00 pm   |

| AAZV GENERAL SESSIONS       | Coronado H         | Monday                            | 7:45 am - 5:15 pm   |
|                            |                   | Tuesday                           | 8:00 am - 12:00 pm  |
|                            |                   | Wednesday                         | 8:00 am - 5:00 pm   |
|                            |                   | Thursday                          | 8:00 am - 5:00 pm   |
|                            |                   | Friday                            | 8:30 am - 12:00 pm  |

| ARAV GENERAL SESSIONS       | Fiesta 6           | Monday                            | 7:45 am - 5:00 pm   |
|                            |                   | Tuesday                           | 8:00 am - 12:00 pm  |
|                            |                   | Wednesday                         | 8:00 am - 5:00 pm   |
|                            |                   | Thursday                          | 8:00 am - 5:15 pm   |

| AEMV GENERAL SESSIONS       | Yucatan 1-3        | Monday                            | 8:00 am - 5:00 pm   |
|                            |                   | Tuesday                           | 8:00 am - 12:00 pm  |
|                            |                   | Wednesday                         | 8:00 am - 5:00 pm   |
|                            |                   | Thursday                          | 8:00 am - 5:15 pm   |
AAZV POSTER PRESENTATIONS: Coronado Lobby
ARAV POSTER PRESENTATIONS: Fiesta 6
AEMV POSTER PRESENTATIONS: Yucatan 3

Set up Sunday from 1:00pm to 8:00pm
Monday 7:00 am - 8:00 pm
Tuesday 7:00 am - 12:00 pm
Wednesday 7:00 am - 11:00 pm
Thursday 7:00 am - 3:45 pm

EXHIBITORS: Veracruz B

Set up Tuesday from 8:00am to 6:00pm
Wednesday 7:00 am - 5:00 pm
Thursday 7:00 am - 3:45 pm

CONTINENTAL BREAKFAST – AAZV/ARAV/AEMV
Monday 7:00 am - 8:00 am Coronado J
Tuesday 7:00 am - 8:00 am Fiesta Lobby
Wednesday 7:00 am - 8:00 am Veracruz B
Thursday 7:00 am - 8:00 am Veracruz B
Friday 7:15 am - 8:15 am Fiesta Lobby

LUNCHES-AAZV
Monday 12:15 pm - 1:30 pm Veracruz A
Wednesday 12:00 pm - 1:15 pm Veracruz A
Thursday 12:00 pm - 1:15 pm Veracruz A

LUNCHES-ARAV/AEMV
Monday 12:00 pm - 1:30 pm Coronado J
Wednesday 12:00 pm - 1:15 pm Veracruz A

LUNCHES-AEMV/ARAV
Thursday 12:00 pm - 1:30 pm Coronado J

VIN CYBER CAFÉ: Sierra 2
Saturday 12:00 pm - 11:00 pm
Sunday 11:00 am - 11:00 pm
Monday 8:00 am - 11:00 pm
Tuesday 8:00 am - 11:00 pm
Thursday 8:00 am - 11:00 pm
Friday 7:00 am - 3:00 pm

AAZV OFFICE: Sierra 1
ARAV OFFICE: Sierra 1
AEMV OFFICE: Sierra 1
WORKSHOPS
Susan Bartlett, AAZV Chair
Katie Heinz-Taheny, ARAV Chair
Dan Johnson & Stacey Leonatti, AEMV Chairs

SATURDAY, OCTOBER 18
AAZV

SHARKS AND RAYS: MEDICINE 101
Natalie Mylniczenko
7:00 am - 12:00 pm
EPCOT, The Seas with Nemo and Friends
WORKSHOP IS OFF SITE.
Early departure at 6:30 AM. Bus leaves from Coronado.

ELEPHANT CARE AND DIAGNOSTIC
Dennis Schmitt
8:00 am - 5:00 pm
Center for Elephant Conservation, Polk City
WORKSHOP IS OFF SITE.
Buses will depart at 7:15 AM from Coronado. Lunch will be provided.

BASICS FOR ZIMS WITH MEDICAL
J. Andrew Teare
8:00 am - 12:00 pm
Yucatan 1

EMERGENCY PROCEDURES FOR SMALL PATIENTS:
MAMMALS AND BIRDS
Darryl J. Heard
1:00 pm - 5:00 pm
Coronado B

FISH NECROPSY AND PATHOLOGY
Carlos Rodriguez
1:00 pm - 5:00 pm
Disney's Animal Kingdom
WORKSHOP IS OFF SITE.
Buses will depart at 12:30 PM from Coronado

SHORTCUTS AND TIME SAVING TIPS FOR ZIMS WITH MEDICAL
J. Andrew Teare
1:00 pm - 5:00 pm
Yucatan 1

SUNDAY, OCTOBER 19
AAZV

CAPTIVE WILDLIFE VETERINARY DISASTER PLANNING PRINCIPLES
Mark Lloyd
8:00 am - 12:00 pm
Coronado R

CL DAVIS/AAZV 21ST ANNUAL ZOO AND WILDLIFE PATHOLOGY WORKSHOP - 2014
Dalen W. Agnew
8:00 am - 5:00 pm
Yucatan 1 & 2
One-hour break for lunch

HOOF TRIMMING: USING SPECIES SPECIFIC CONFORMATION AND HOOF MAPPING TO GUIDE THE TRIM
Steve Foxworth
8:00 am - 5:00 pm
Disney's Animal Kingdom
WORKSHOP IS OFF SITE.
Buses will depart at 7:30 AM from Coronado;
One-hour break for lunch

HOOFSTOCK ULTRASOUND: THORAX AND ABDOMEN IN SMALL RUMINANTS AND EQUIDS
Meg Thompson
8:00 am - 12:00 pm
Disney's Animal Kingdom
WORKSHOP IS OFF SITE.
Buses will depart at 7:30 AM from Coronado.

MANATEE RESCUE AND REHABILITATION
Stacy N. DiRocco
8:00 am - 12:00 pm
SeaWorld
WORKSHOP IS OFF SITE.
Buses will depart at 7:30 AM from Coronado.
PARASITOLOGY CHALLENGES: ADVANCED ALTERNATIVES
FOR CONTROL
James E. Miller
1:00 pm - 5:00 pm
Disney's Animal Kingdom

WORKSHOP IS OFF SITE.
Buses will depart at 12:30 PM from Coronado.

USDA ACCREDITATION RENEWAL MODULES
Gregory S. Gaj
1:00 pm - 5:00 pm
Coronado S

ARAV

STATISTICS FOR THE ZOO/EXOTIC CLINICIAN: DESIGNING STUDIES,
COLLECTING DATA AND INTERPRETING IT
Mark Mitchell
8:00 am - 12:00 pm
Yucatan 3

BOAS, BUNNIES, AND BEARS: APPLYING THE SCIENCE OF
LEARNING ACROSS SPECIES TO OPTIMIZE ANIMAL HEALTH
AND WELLBEING
Leigh Clayton
8:00 am - 12:00 pm
Coronado T

BASIC (LIZARD) ENDOOSCOPY
Steve Divers
8:00 am - 12:00 pm
International Palms

WORKSHOP IS OFF SITE.
Buses will depart at 7:15 AM from Coronado.

GENERAL REPTILE ECHOCARDIOGRAPHY
Lionel Schilliger
8:00 am - 12:00 pm
International Palms

WORKSHOP IS OFF SITE.
Buses will depart at 7:15 AM from Coronado.

SPECIES FOCUS: TORTOISES
Adolf Maas
1:30 pm - 5:30 pm
Yucatan 3

DIAGNOSTIC HEMATOLOGY AND CYTOLOGY OF REPTILES
Nicole Stacy
1:30 pm - 5:30 pm
Coronado T

INTERMEDIATE (CHELONIAN) ENDOOSCOPY
Steve Divers
1:30 pm - 5:30 pm
International Palms

WORKSHOP IS OFF SITE.
Buses will depart at 12:45 PM from Coronado.

SOFT TISSUE SURGERY OF GREEN IGUANAS
Avery Bennett
1:30 pm - 5:30 pm
International Palms

WORKSHOP IS OFF SITE.
Buses will depart at 12:45 PM from Coronado.

AEMV

CLINICAL PATHOLOGY
Fiesta 7 & 8
8:00 am - 12:00 pm

CLINICAL PATHOLOGY
Fiesta 7 & 8
1:00 pm - 5:00 pm

FRIDAY, OCTOBER 24

AAZV

AAZV LEADERSHIP WORKSHOP BY DISNEY'S INSTITUTE
Disney's Institute
8:00 am - 5:00 pm
Fiesta 5

Lunch provided for registered attendees
# BUSINESS / COMMITTEE / OTHER MEETINGS

## FRIDAY, OCTOBER 17

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAZV Executive Committee</td>
<td>7:30-9:30PM</td>
<td>Fiesta 7</td>
</tr>
<tr>
<td><strong>Closed Session</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## SATURDAY, OCTOBER 18

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAZV Executive Board</td>
<td>7:30 am - 6:00 am</td>
<td>Fiesta 7</td>
</tr>
<tr>
<td>AARAV Executive Board</td>
<td>7:30 am - 6:00 am</td>
<td>Coronado E</td>
</tr>
<tr>
<td>AEMV Executive Board</td>
<td>7:30 am - 6:00 am</td>
<td>Coronado F</td>
</tr>
<tr>
<td>ACZM Ultra Short Course</td>
<td>8:00 am - 5:00 pm</td>
<td>Coronado C-D</td>
</tr>
<tr>
<td>EAMCP Scientific Session</td>
<td>8:00 am - 5:00 pm</td>
<td>Fiesta 8-10</td>
</tr>
<tr>
<td>All Group Executive Boards Lunch</td>
<td>12:00 pm - 1:00 pm</td>
<td>Yucatan 2 &amp; 3</td>
</tr>
</tbody>
</table>

## SUNDAY, OCTOBER 19

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>EAMCP Scientific Session</td>
<td>8:00 am - 5:00 pm</td>
<td>Fiesta 8-10</td>
</tr>
<tr>
<td>ACZM Membership Meeting</td>
<td>1:00 PM - 5:00 PM</td>
<td>Coronado C-D</td>
</tr>
</tbody>
</table>

*Membership reception immediately following meeting*

## MONDAY, OCTOBER 20

<table>
<thead>
<tr>
<th>Meeting</th>
<th>Time</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAZV International Committee Meeting</td>
<td>7:30 pm - 8:30 pm</td>
<td>Coronado F-G</td>
</tr>
<tr>
<td>AAZV Member Services Committee Meeting</td>
<td>7:30 pm - 8:30 pm</td>
<td>Coronado C-D</td>
</tr>
<tr>
<td>AAZV Conservation Wildlife Health</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Committee Meeting</td>
<td>7:30 pm - 8:30 pm</td>
<td>Fiesta 7 &amp; 8</td>
</tr>
<tr>
<td>AAZV Infectious Disease Committee Meeting</td>
<td>7:30 pm - 8:30 pm</td>
<td>Fiesta 9 &amp; 10</td>
</tr>
<tr>
<td>AAZV Education Committee Meetings</td>
<td>7:30 pm - 8:30 pm</td>
<td>Coronado E</td>
</tr>
<tr>
<td>AAZV PR/Development Committee</td>
<td>8:45 pm - 10:30 pm</td>
<td>Coronado E</td>
</tr>
<tr>
<td>ARAV Editorial Board</td>
<td>7:30 pm - 8:30 pm</td>
<td>Laredo 1</td>
</tr>
<tr>
<td>ARAV Education Committee</td>
<td>8:30 pm - 10:00 pm</td>
<td>Laredo 1</td>
</tr>
<tr>
<td>ARAV Legislative/Animal Welfare Committee</td>
<td>7:30 pm - 8:30 pm</td>
<td>Yucatan 1</td>
</tr>
<tr>
<td>ARAV International Committee</td>
<td>8:30 pm - 10:00 pm</td>
<td>Yucatan 1</td>
</tr>
<tr>
<td>ARAV Membership/PR Committee</td>
<td>7:30 pm - 8:30 pm</td>
<td>Laredo 2</td>
</tr>
<tr>
<td>ARAV Development Committee</td>
<td>8:45 pm - 10:30 pm</td>
<td>Laredo 2</td>
</tr>
</tbody>
</table>
ALL GROUP ACTIVITIES & SPECIAL EVENTS

SUNDAY, OCTOBER 19
Opening Icebreaker 7:00 pm - 8:30 pm Disney’s Epcot, The Seas with Nemo and Friends: Seas Pavilion
Followed by EPCOT Fireworks
6:30 PM Buses will depart from Conference Hotels
Returns to Hotel beginning at 8:30pm on Charter
Return after Firework show by Magical Express Buses

MONDAY, OCTOBER 20
Veterinary Student Reception 5:30 pm - 7:30 pm La Mesa Patio & Monterrey 1-3
Institutional Reps report at 5:15 PM. Sponsored by Disney’s Animals, Science and Environment & ACZM. Must have ticket to attend.
Oxbow Reception 7:30 pm - 10:00 pm Durango 1-2
By Invitation Only

TUESDAY, OCTOBER 21
Zoo Trip 12:05 pm - 9:30 pm Disney’s Animal Kingdom
Must pick-up box lunch before boarding buses;
Must turn in Zoo Day Ticket to get Park Pass

WEDNESDAY, OCTOBER 22
Joint Executive Officers Conference Planning Meeting 6:30 am - 7:30 am Coronado B
Polar Bear International Reception 5:30 pm - 7:30 pm Durango 1
By invitation only
ARAV/AEMV Banquet 6:30 pm - 9:30 pm Coronado J
6:30 pm Cocktail Hour, Dinner begins 7:30 pm

THURSDAY, OCTOBER 23
AEMV Exotic Companion Animal Diplomates Breakfast 6:45 am-7:45 am Coronado F
AAZV Banquet 6:00 pm - 10:00 pm Coronado H
6:00 pm Cocktail Hour, Dinner begins 7:00 pm
AAZV SCIENTIFIC PROGRAM
MONDAY, OCTOBER 20

6:45-7:45  New AAZV Members Breakfast  Coronado F - G
7:00-8:00  Poster Viewing  Central Registration Area
7:00-8:00  Continental Breakfast  Coronado J
8:00-11:00  VIN Cyber Café  Sierra 2
9:00-10:30  AAZV Spouse Breakfast  Las Ventanas

AAZV
MORNING SESSIONS

7:45-8:00  Special Opening
Must be in seats at 7:45, late arrivals will be seated at 8:00

8:05-8:21  INTRODUCTIONS/WELCOME

One Health: Linking Human, Animal and Environmental Health  Coronado H

Chair: Terra Kelly
Co-Chair: Sharon Deem

8:22-8:33  Improving village chicken health to decrease bushmeat hunting in the Makira protected area, Madagascar  Graham Crawford

8:34-8:45  Antibiotic resistance patterns in free-ranging eastern box turtles (Terrapene carolina carolina): Comparisons among an urban and agriculture site and implications for health  Matt Allender

8:46-8:57  Multihost pathogens in, and jaguar predation on, domestic dogs in Nicaragua’s Bosawas biosphere reserve  Christine Fiorello

8:58-9:09  Antibodies against canine distemper virus in sympatric populations of sechuran foxes (Lycalopex sechurae) and domestic dogs (Canis lupus familiaris)  Jesús Lescano

9:10-9:21  Investigations into environmental pressures on Florida manatee health: the need for a multidisciplinary approach following the One Health concept  Martine de Wit

9:22-9:33  Gastrointestinal parasites of domestic carnivores and lemurs in Madagascar  Amy Alexander

9:34-9:45  Funding projects and programs in wildlife health  Robert Cook

9:46-9:57  Urbanized wildlife: You are where you live  Sonia Hernandez
9:58-10:10 QUESTIONS

10:10-10:40 Beverage Break Service
Fiesta Lobby

10:40-10:41 INTRODUCTION
Deena Brenner

Topics in Avian Medicine
Coronado H

Chair: Javier Nevarez
Co-Chair: Gretchen Cole

10:42-10:52 Pharmacokinetics of butorphanol delivered via osmotic pump over 7 days to common peafowl (*Pavo cristatus*)
Meredith Clancy

10:53-11:03 Evaluation of thermal antinociceptive effects of buprenorphine hydrochloride in cockatiels (*Nymphicus hollandicus*)
Emma Houck

11:04-11:14 Voriconazole toxicity in multiple penguin species
Timothy Georoff

11:15-11:25 Avian mycobacteriosis: Whole-genome sequence analysis for transmission source identification
Josephine Braun

11:26-11:36 Effects of exercise on lipid metabolism in Hispaniolan Amazon parrots (*Amazona ventralis*) with hypercholesterolemia
Joanne Paul-Murphy

11:37-11:47 Digestibility of critical care diets and nitrogen balance in oiled common murres (*Uria aalge*) and western grebes (*Aechmophorus occidentalis*) received for rehabilitation in California
Rebecca Duerr

11:48-11:58 The preliminary investigation of hydroxyethyl starch for avian red blood cell cryopreservation
Jennifer Graham

11:59-12:09 Erosive enteritis and intestinal obstruction caused by decomposed granite in lesser flamingos (*Phoenicopterus minor*): Clinical management of a large flock and long-term implications
Carlos Sanchez

12:10-12:15 QUESTIONS

12:15-1:30 AAZV Business Lunch
Veracruz A
AFTERNOON SESSIONS

1:30-1:31  INTRODUCTION  Deena Brenner

The Art of Anesthesia and Sedation  Coronado H

Chair: Luis Padilla  
Co-Chair: Peter Black

1:32-1:43  Evaluating the pharmacokinetics of meloxicam after intravenous and intramuscular administration in tilapia (Oreochromis niloticus)  Dan Fredholm

1:44-1:55  Evaluating the efficacy of alfaxalone as an anesthetic agent in oscar fish (Astronotus ocellatus)  Mark Mitchell (Annie Rivas)

1:56-2:07  Evaluation of intramuscular alfaxalone for induction of anesthesia in clinical reptile cases  Sandra Wenger

2:08-2:19  Evaluation of alfaxalone-midazolam for sedation and anesthetic induction in California sea lions (Zalophus californianus) in a rehabilitation center  Benjamin Nevitt

2:20-2:31  Alfaxalone, in combination with medetomidine and azaparone, for immobilization of captive white-tailed deer (Odocoileus virginianus)  Nigel Caulkett

2:32-2:43  Effect of azaperone on blood pressure and other cardiorespiratory parameters in etorphine-immobilized free-ranging African elephants – role in managing anesthetic complications  Michele Miller

2:44-2:55  Current review of anesthesia of captive Nile hippopotamus (Hippopotamus amphibious) at Disney's Animal Kingdom  Taylor Yaw

2:56-3:07  Comparison of indirect blood pressure values in chimpanzee (Pan troglodytes) anesthetized with two anesthetic protocols: Tiletamine-Zolazepam and Tiletamine-Zolacepam-Medetomidine  Pablo Rodríguez-López del Río

3:08-3:15  QUESTIONS

3:15-3:45  Beverage Break Service  Fiesta Lobby
3:45-3:46 INTRODUCTION Deena Brenner

**Advanced Topic: Infertility Workshop** Coronado H

Presenters: Cheri Asa and Linda Penfold

3:47-4:45 Outcomes of AZA workshop on diagnosis, treatment and prevention of infertility Cheri Asa / Linda Penfold

4:46-4:50 QUESTIONS

4:50-4:51 INTRODUCTION Deena Brenner

**Special Presentation** Coronado H

4:52-5:05 Celebration Laparoscopy

**Committee Meetings**

<table>
<thead>
<tr>
<th>Time</th>
<th>Committee Meeting</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:30-8:30</td>
<td>AAZV International Committee Meeting</td>
<td>Coronado F - G</td>
</tr>
<tr>
<td>7:30-8:30</td>
<td>AAZV Member Services Committee Meeting</td>
<td>Coronado C-D</td>
</tr>
<tr>
<td>7:30-8:30</td>
<td>AAZV Conservation Wildlife Health Committee Meeting</td>
<td>Fiesta 7 &amp; 8</td>
</tr>
<tr>
<td>7:30-8:30</td>
<td>AAZV Infectious Disease Committee Meeting</td>
<td>Fiesta 9 &amp; 10</td>
</tr>
<tr>
<td>7:30-8:30</td>
<td>AAZV Education Committee Meetings</td>
<td>Coronado E</td>
</tr>
<tr>
<td>8:45-10:30</td>
<td>AAZV PR/Development Committee</td>
<td>Coronado E</td>
</tr>
</tbody>
</table>
TUESDAY, OCTOBER 21

6:45-7:45  Past President’s Breakfast  Coronado G
7:00-8:00  Poster Viewing  Central Registration Area
7:00-8:00  Continental Breakfast  Fiesta Lobby
8:00-11:00 VIN Cyber Café  Sierra 2
8:00-6:00  Exhibit Set up  Veracruz B

AAZV

MORNING SESSIONS

8:00-8:01  INTRODUCTION  Deena Brenner

Waterworld: Clinical Aquatic Medicine and Management of Life Support Systems  Coronado H

Chair: Michele Davis
Co-Chair: Eric Anderson

8:02-8:12  Milbemycin oxime (Interceptor ®) treatment of amphipod parasites (hyperiidae) from several host jellyfish species  Jennifer Boonstra

8:13-8:23  Remote chemical immobilization of large sharks  Matthew Runnells

8:24-8:34  Protein and cholesterol electrophoresis of plasma samples from the cownose ray (Rhinoptera bonasus)  Carolyn Cray

8:35-8:45  Microbes and the aquarium  Andrew Stamper

8:46-8:56  Sea turtle neurology  Terry Norton

8:57-9:07  Investigating chelonid fibropapilloma-associated herpesvirus in symptomatic and asymptomatic rehabilitating green sea turtles (Chelonia mydas)  Annie Page-Karjian

9:08-9:18  Clinical pathology, serum brevetoxin, and clinical signs of Florida manatees (Trichechus manatus latirostris) during the brevetoxin related mortality event in southwest Florida 2013  Ray Ball

9:19-9:29  Reproductive neoplasms in wild and long-term captive female Florida manatees (Trichechus manatus latirostris)  Lauren Smith

9:30-9:45  QUESTIONS
9:45-10:15  Beverage Break Service  
Co-Sponsored by Sustainable Swine Resources  
Fiesta Lobby

10:15-10:16  INTRODUCTION  
Deena Brenner

Emergency, Critical Care and Advanced Techniques  
Coronado H

Chair: Russ Burns  
Co-Chair: Sathya Chinnadurai

10:17-10:28  Post-operative in-hospital management of a western lowland gorilla (Gorilla gorilla gorilla) with a multimodal approach toward patient care and compliance  
Robert Moore

10:29-10:40  Functional assessment and multimodal approach to pain management in zoo patients  
Lauren Howard

10:41-10:52  Circulating immunoglobulin G in a healthy population of neonatal bottlenose dolphins (Tursiops truncatus)  
Carolina Le-Bert

10:53-11:04  Neonatal critical care and hand-rearing of a bottlenose dolphin calf (Tursiops truncatus)  
Jennifer Flower

11:05-11:16  Use of implantable loop recorders to monitor for cardiac disease in captive gorillas (Gorilla gorilla gorilla)  
Ann Duncan

11:17-11:28  Evaluation of whole blood transfusion in red-eared sliders (Trachemys scripta elegans)  
Chih Chun Wu

11:29-11:40  Coagulation profiles in novel species: A research and diagnostic tool for zoo and aquatic animal medicine  
Trevor Gerlach

11:41-11:52  Application of thromboelastography to estimate therapeutic concentration of epsilon aminocaproic acid in the northern elephant seal (Mirounga angustirostris)  
Sarrah Kaye

11:53-12:00  QUESTIONS

12:00 – 12:45  Box Lunch, Must pick-up before boarding buses  
Coronado Lobby H-J

Must turn in Zoo Day Ticket to get Park Pass

12:05  Zoo Trip begins  
Must turn in ticket on bus to get Park Pass  
Disney's Animal Kingdom
WEDNESDAY, OCTOBER 22

6:30-7:30  Joint Executive Officers
Conference Planning Meeting  Coronado B

7:00-8:00  Continental Breakfast  Veracruz B

7:00-5:00  Exhibit Hall Open  Veracruz B

8:00-11:00  Vin Cyber Cafe  Sierra 2

AAZV

MORNING SESSIONS

8:00-8:01  INTRODUCTION  Deena Brenner
Common Ground: AZA and AAZV  Coronado H
Chair: Pam Dennis
Co-Chair: Diana Boon

8:02-8:17  AZA: Committed to Sustaining Healthy Populations  Jackie Ogden

8:18-8:33  Institutional risk analysis: A smarter basis for preshipment testing and quarantine elimination?  Geoffrey Pye

8:34-8:49  Sustainability: It’s more than increasing population numbers!  Yvonne Nadler

8:50-9:15  Failure to reproduce, who’s invited?  Anneke Moresco

9:16-9:31  Geriatric animal care and end-of-life decision-making in zoological institutions  Elizabeth Nolan

9:32-9:47  The role of management euthanasia in population sustainability and animal welfare  David Powell

9:48-10:00  QUESTIONS

10:00-10:45  Beverage Break Service, Co-Sponsored by Abaxis  Veracruz B

10:45-10:46  INTRODUCTION  Deena Brenner
Panel Discussion  Coronado H
Moderator: Doug Armstrong

10:47-12:00  Panel discussion on management euthanasia  Doug Armstrong

12:00  AAZV / ARAV / AEMV Joint Lunch  Veracruz A
AFTERNOON SESSIONS

1:15-1:16  INTRODUCTION Deena Brenner

1:17-2:02  Featured Speaker
Social Changes, Communication Channels, and Media Create New Challenges for Institutions with Animals in Professional Care Jill Allread

2:03-2:15  QUESTIONS

2:15-3:00  Beverage Break Service Veracruz B

3:00-3:01  INTRODUCTION Deena Brenner

Conservation: Bear Focus Coronado H
Chair: Wynona Shellabarger
Co-Chair: Randi Myerson

3:02-3:27  Keynote Speaker
Polar Bears in a Changing Climate Greg Thiemann

3:28-3:43  Understanding natural ursid physiology with trained animals Lynne Nelson

3:44-3:54  Developing field research and zoo collaborations to promote polar bear (Ursus maritimus) conservation Anthony Pagnano

3:55-4:05  The use of medical training to facilitate field research collaboration in polar bears (Ursus maritimus) Tim Storms

4:06-4:16  Polar bears: How ex situ research can answer in situ questions Wynona Shellabarger

4:17-4:27  Infectious pathogens and resistance to diseases related to ursids: Are microparasites a factor in the ursid threatened species management plans? Ezequiel Hidalgo

4:28-4:38  Evolution in giant panda (Ailuropoda melanoleuca) conservation: the growing interest in health and disease susceptibility Copper Aitken-Palmer

4:39-4:49  “Twin swapping” a technique developed for the successful rearing of giant panda twins Sam Rivera

4:50-5:00  QUESTIONS
Committee Meetings

5:30-7:30  Polar Bear International Reception
           By Invitation Only           Durango 1
7:30-8:30  AAZV Editorial Board Meeting     Coronado D
7:30-8:30  AAZV LAW Committee Meeting       Coronado E
7:30-8:30  AAZV Leadership Forum            Coronado F - G
8:30      SPC & EAZWV Conference Planning Meeting Coronado B
8:45-10:30 AAZV Research Grant Committee Meeting Coronado D
8:45-10:30 Canadian Assoc. of Zoo & Wildlife Veterinarians Coronado F - G
THURSDAY, OCTOBER 23

7:00-8:00  Continental Breakfast  Veracruz B
7:00-3:45  Exhibit Hall Open  Veracruz B
8:00-11:00  VIN Cyber Café  Sierra 2

.MORNING SESSIONS

8:00-8:01  INTRODUCTION  Deena Brenner
Tips, Tricks, and Case Reports  Coronado H
Chair: Copper Aitken-Palmer
Co-Chair: Sam Rivera

8:02-8:12  Balamuthia mandrillaris in a western lowland gorilla (Gorilla gorilla gorilla)  Jenessa Gjeltema
8:13-8:23  Best practices for the cardiac necropsy: Tips for clinicians (and pathologists) performing ape necropsies  Karen Terio
8:24-8:34  No kidding: Brucellosis in waxy tree frogs (Phyllomedusa sauvagii)  Michael Garner
8:35-8:45  Subspectacular nematodiasis caused by a novel rhabdias species in ball pythons (Python regius)  Jennifer Hausmann
8:46-8:56  Lateral digit amputation at the proximal interphalangeal joint in an okapi (Okapia johnstoni): Surgical technique and outcome  Lauren Smith
8:57-9:07  Percutaneous ureteral stent placement for the treatment of a benign ureteral obstruction in a Sumatran tiger (Panthera tigris sumatrae)  Katie Delk
9:08-9:18  Abdominal wall reconstruction in a brown pelican (Pelecanus occidentalis)  Antonia Gardner
9:19-9:29  Testicular seminomas in two giant pandas (Ailuropoda melanoleuca)  Christine Molter
9:30-9:40  Successful treatment of mandibular osteomyelitis in two red-necked wallabies (Macropus rufogriseus) using long-term pharmaceutical therapy and serial monitoring by computed tomography imaging  Lauren Kane
Non-surgical gastric foreign body removal in a California sea lion (Zalophus californianus) using a novel dynamic flush-suction-tilt method

John Sykes

AAZV Concurrent Sessions

8:00-8:01 INTRODUCTION
Deena Brenner

Behavioral Management: Therapeutics and Training
Durango 1 & 2

Chair: Leigh Clayton
Co-chair: Marion Desmarchelier

8:02-8:17 Animal welfare - Opportunities to thrive
Donald Janssen

8:18-8:33 Management of behavioral disorders in zoo primates: Two cases at Melbourne Zoo
Kate Bodley

8:34-8:49 Results of the 2012-2013 megavertebrate analgesia survey: Elephant and rhinoceros
Jack Kottwitz

8:50-9:05 Exercise and health in Asian elephants (Elephas maximus)
Hanspeter W. Steinmetz

9:06-9:49 Keynote Speaker
Psychotropic drug use in captive wild animals
Valerie Tynes

10:40-10:41 INTRODUCTION
Deena Brenner

Predator-Prey: Carnivores and Hoofstock
Coronado H

Chair: Maren Connolly
Co-chair: Dominique Keller

10:42-10:53 Evaluation of neonatal okapi (Okapia johnstoni) mortality and its associations with early defecation
Meredith Clancy

10:54-11:05 Mycobacterial infection and tuberculosis in free-ranging African lions (Panthera leo) – Potential impact of environmental mycobacteria on diagnostic testing
Michele Miller
11:06-11:17 Necrotizing encephalitis in two arctic foxes (*Alopex lagopus*): ante mortem and post mortem investigations
Pauline Delnatte

11:18-11:29 Diagnosis and management of pedal osteitis and pedal fracture for a large herd of reticulated giraffe (*Giraffa camelopardalis reticulata*)
Liza Dadone

11:30-11:41 Babesiosis in captive North American populations of maned wolves (*Chrysocyon brachyurus*)
Erica Lipanovich

11:42-11:53 Associations between gastritis, temperament and management risk factors in captive cheetahs (*Acinonyx jubatus*)
Karen Terio

11:54-12:00 QUESTIONS

12:00-1:15 **AAZV Business Lunch**
Veracruz A

**AFTERNOON SESSIONS**

1:15-1:16 **INTRODUCTION**
Deena Brenner

**Epidemiology of Disease in Wild and Zoo Populations**
Coronado H

Chair: Matt Allender
Co-chair: Jenny Waldoch

1:17-1:28 Epidemiology of ulcerative shell disease in red-eared slider turtles (*Trachemys scripta*) in a wildlife facility in Colombia between 2005 and 2009
Andres Alejandro Castro

1:29-1:40 The changing epidemiology of ophiidiomyces in free-ranging snakes: Surveillance, experimental challenge, and development of new diagnostics
Matt Allender

1:41-1:52 Fatal lead toxicity in captive Nile crocodiles: Clinical syndrome and attempted chelation therapy with oral d-penicillamine
Conor Kilgallon

1:53-2:04 Ranaviruses in reptiles in Europe
Anke Stöhr

2:05-2:16 Virus discovery work in marine iguanas (*Amblyrhynchus cristatus*) in association with an unusual mortality event
Galaxia Cortés-Hinojosa

2:17-2:28 Varicella zoster virus (vZV) epidemic in a breeding and a bachelor group of western lowland gorillas (*Gorilla gorilla gorilla*) with fatal varicella pneumonia
Baptiste Mulot
<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:29-2:40</td>
<td>Cardiovascular and hepatic disease in wild eastern lowland gorillas (Gorilla beringei graueri)</td>
<td>Eddy Kambale</td>
</tr>
<tr>
<td>2:41-2:52</td>
<td>Giardia and cryptosporidium in people, domestic animals and lemurs from the Ranomafana ecosystem, Madagascar</td>
<td>Fidisoa Rasambainarivo</td>
</tr>
<tr>
<td>2:53-3:00</td>
<td>QUESTIONS</td>
<td></td>
</tr>
<tr>
<td>3:00-3:40</td>
<td>Beverage Break Service</td>
<td>Veracruz B</td>
</tr>
</tbody>
</table>

**AAZV Concurrent Sessions**

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>1:15-1:16</td>
<td>INTRODUCTION</td>
<td>Deena Brenner</td>
</tr>
<tr>
<td></td>
<td><strong>Featured Speaker: Sathya Chinnadurai</strong></td>
<td></td>
</tr>
<tr>
<td>1:17-2:02</td>
<td>Knowledge is power: Effective anesthetic monitoring and logical crisis management</td>
<td>Sathya Chinnadurai</td>
</tr>
<tr>
<td>2:03-2:10</td>
<td>QUESTIONS</td>
<td></td>
</tr>
<tr>
<td>2:10-2:11</td>
<td>INTRODUCTION</td>
<td>Deena Brenner</td>
</tr>
<tr>
<td></td>
<td><strong>Featured Speaker: Dave Fagan</strong></td>
<td></td>
</tr>
<tr>
<td>2:12-2:52</td>
<td>Complications associated with elephant tusks</td>
<td>Dave Fagan</td>
</tr>
<tr>
<td>2:53-3:00</td>
<td>QUESTIONS</td>
<td></td>
</tr>
<tr>
<td>3:00-3:40</td>
<td>Beverage Break Service</td>
<td>Veracruz B</td>
</tr>
<tr>
<td>3:45</td>
<td>Removal of Posters and Exhibit Hall breakdown</td>
<td>Central Registration Area</td>
</tr>
<tr>
<td>3:40-3:41</td>
<td>INTRODUCTION</td>
<td>Deena Brenner</td>
</tr>
</tbody>
</table>

**Zoo Careers**

Chair: Lauren Howard  
Co-chair: Ginger Sturgeon

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:42-3:54</td>
<td>Embracing the One Health initiative: From zoo medicine to in situ medicine and conservation</td>
<td>Michael Cranfield</td>
</tr>
<tr>
<td>3:55-4:07</td>
<td>Zoological medicine: Our seductive profession</td>
<td>Roy Burns</td>
</tr>
<tr>
<td>Time</td>
<td>Session</td>
<td>Presenter</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------------------------------------------------------------------</td>
<td>---------------------------</td>
</tr>
<tr>
<td>4:08-4:20</td>
<td>Zoological contortions: Advantages and disadvantages of joining veterinarian and curator positions</td>
<td>Tara Harrison</td>
</tr>
<tr>
<td>4:21-4:33</td>
<td>Only those with vision, passion, and tremendous fortitude need apply…The role of president and CEO (and mom) in today’s zoos and aquariums</td>
<td>Barbara Baker</td>
</tr>
<tr>
<td>4:34-4:46</td>
<td>From non-profit, to corporate, to college dean. Pros and cons of working and living in each world</td>
<td>Mark Stetter</td>
</tr>
<tr>
<td>4:47-5:00</td>
<td>QUESTIONS</td>
<td></td>
</tr>
</tbody>
</table>

**AAZV Concurrent Sessions**

<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:40-3:41</td>
<td>INTRODUCTION</td>
<td>Deena Brenner</td>
</tr>
<tr>
<td>3:42-3:53</td>
<td>Management of a breeding herd of African elephants (<em>Loxodonta africana</em>) on a predominantly forage diet</td>
<td>Ray Ball</td>
</tr>
<tr>
<td>3:54-4:05</td>
<td>Dietary manipulation to reduce hypercholesterolaemia in managed meerkat (<em>Suricata suricatta</em>) populations</td>
<td>Taina Strike</td>
</tr>
<tr>
<td>4:06-4:17</td>
<td>Cobalamin deficiency in a lesser kudu (<em>Tragelaphus imberbis</em>): Clinical manifestations, diagnosis, and response to treatment</td>
<td>June Olds</td>
</tr>
<tr>
<td>4:18-4:29</td>
<td>Evaluation of a novel technique as an indicator of immunoglobulin passive transfer in six species of non-domestic ruminant</td>
<td>Jessica Emerson</td>
</tr>
<tr>
<td>4:30-4:41</td>
<td>Evaluation of in-house urine dipstick, reference laboratory urinalysis, and urine protein:creatinine ratio from a colony of Goeldi’s monkeys (<em>Callimico goeldii</em>)</td>
<td>Sarah Cannizzo</td>
</tr>
<tr>
<td>4:42-4:53</td>
<td>Quarantine considerations during coordination of a multi-institutional shipment of temperate and Antarctic penguins to the Kansas City Zoo</td>
<td>Wm. Kirk Suedmeyer</td>
</tr>
<tr>
<td>4:54-5:00</td>
<td>QUESTIONS</td>
<td></td>
</tr>
<tr>
<td>6:00-7:00</td>
<td>AAZV Reception</td>
<td>Coronado lobby</td>
</tr>
<tr>
<td>7:00-10:00</td>
<td>AAZV Banquet</td>
<td>Coronado H</td>
</tr>
</tbody>
</table>
FRIDAY, OCTOBER 24

7:15-8:30  Continental Breakfast  Coronado Lobby
7:00-3:00  VIN Cyber Café  Sierra 2

AAZV

MORNING SESSIONS

8:30-8:31  INTRODUCTION  Deena Brenner

Advanced Topic  Coronado H

Session Chair: Nicole Stacy

8:32-9:24  From Frog and Mouse to Dolphin and Elephant: Comparative Hematology and Its Use as a Diagnostic Tool  Nicole Stacy

9:25-9:30  QUESTIONS

9:30-10:00  AAZV Beverage Service  Coronado lobby
10:00-10:01  INTRODUCTION  Deena Brenner

Advanced Topic  Coronado H

Session Chair: Jim Wellehan

10:02-10:54  Clinical Significance of Microbial Evolution and Ecology: Why You Should Care About Phylogenetic Trees  Jim Wellehan

10:55-11:00  QUESTIONS

11:00-11:01  INTRODUCTION  Deena Brenner

Advanced Topic  Coronado H

Session Chair: Alex Gallagher

11:02-11:54  Chronic Kidney Disease – An Update From the World of Cats And Dogs  Alex Gallagher

11:55-12:00  QUESTIONS

Workshop

8:00-5:00  AAZV Leadership Workshop by Disney’s Institute, Lunch provided for registered attendees  Fiesta 5
ARAV SCIENTIFIC PROGRAM  
MONDAY, OCTOBER 20

7:00-8:00  Poster Viewing  
Fiesta 6

7:00-8:00  Continental Breakfast  
Veracruz Lobby

8:00-11:00  VIN Cyber Café  
Sierra 2

ARAV

MORNING SESSIONS

7:45-8:00  Special Opening  
Coronado H

*Must be in seats at 7:45*, late arrivals go to Fiesta 6

Keynote Speaker & Infectious Diseases  
Fiesta 6

Session Co-chairs: David Hannon/Anneliese Strunk

8:00-8:10  Welcome and General Remarks

8:10-8:30  Us Versus T.H.E.M. (*The Anti-Pet Agenda*)  
Phil Goss/USARK

8:30-8:45  A Novel Emerging filamentous  
Virus Identified in Collections of  
Ball Pythons (*Python regius*) with  
Respiratory and Oropharyngeal Disease  
Elliott R Jacobson

8:45-9:00  Picornaviruses of Tortoises  
Rachel E. Marschang

9:00-9:15  Salmonella subsp. arizonae  
Osteomyelitis in Crotalus willardi:  
A Review of 25 Years’ Experience  
Ed Ramsay

9:15-9:30  Epidemiology of Herpesvirus in  
Free-ranging Box Turtles Using a  
Newly Developed Real Time PCR  
Lauren Kane

9:30-9:45  Identification of a novel herpesvirus in a  
leopard tortoise (*Stigmochelys pardalis*)  
coinfected with intranuclear  
coccidia  
Kali Standorf

9:45-10:00  Wood Frogs (*Lithobates sylvaticus*)  
May Function as Superspreaders  
of Ranavirus.  
Patrick Neal Reilly

10:00-10:30  Beverage Break Service  
Fiesta Lobby

Infectious Diseases Cont.  
Fiesta 6

Session Co-chairs: David Hannon/Anneliese Strunk

10:30-10:45  Nannizziopsiaceae spp. Infection in  
Aquatic Chelonians  
Daniel Woodburn

10:45-11:00  Fusarium infection in Texas  
Tortoises  
J Jill Heatley
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenter</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00-11:15</td>
<td>Characterization of a Novel Testadenovirus in a Red-Footed Tortoise (Chelonoidis Carbonaria)</td>
<td>Lauren Brown</td>
</tr>
<tr>
<td>11:15-11:30</td>
<td>First detection of two distinct lineages of Testudinind herpesvirus 3 (TeHV-3) in Mediterranean tortoises</td>
<td>Francesco C. Origgi</td>
</tr>
<tr>
<td>11:30-11:45</td>
<td>Development of a Quantitative PCR Assay for a Novel Adenovirus in the Box Turtle (Terrapene carolina)</td>
<td>Stella Anna Blum</td>
</tr>
<tr>
<td>11:45-12:00</td>
<td>Q&amp;A with Presentation of the Oxbow Exotic Mammal Health Award</td>
<td></td>
</tr>
<tr>
<td>12:00-1:30</td>
<td>ARAV / AEMV Lunch (Business Meeting)</td>
<td>Coronado J</td>
</tr>
<tr>
<td>1:30-1:45</td>
<td>The Snake Spectacle: Normal Morphology and Pathologic Manifestations</td>
<td>Mari-Ann O. Da Silva</td>
</tr>
<tr>
<td>1:45-2:00</td>
<td>Cyclooxygenase enzyme (COX-1 and COX-2) activity in control and traumatized skin and muscle of ball pythons (Python regius)</td>
<td>Ryan Sadler</td>
</tr>
<tr>
<td>2:00-2:15</td>
<td>Assessing the Digestability of Crickets Fed Three Different Cricket Diets in Bearded Dragons (Pogona vitticeps)</td>
<td>Mark A. Mitchell</td>
</tr>
<tr>
<td>2:15-2:30</td>
<td>Glomerluar Filtration Rates of Naturally Cold-stunned Kemp’s Ridley Turtles (Lepidochelys kempii): Comparison of Initial and Convalescent Values</td>
<td>Charles Innis</td>
</tr>
<tr>
<td>2:30-2:45</td>
<td>Failing the Galapagos Tortoise (Chelonoidis nigris): Death and Body Changes Resulting from Poor Husbandry</td>
<td>Thomas W. deMaar</td>
</tr>
<tr>
<td>2:45-3:00</td>
<td>Q&amp;A</td>
<td></td>
</tr>
<tr>
<td>3:00-3:30</td>
<td>Beverage Break Service</td>
<td>Fiesta Lobby</td>
</tr>
</tbody>
</table>
Clinical Techniques

Session Co-chairs: Steve Divers, Bruce Bogoslavski

3:30-3:45  Jugular central venous catheter placement through a modified Seldinger technique for long-term venous access in chelonians.  
           Mariana Pardo

3:45-4:00  Interesting Surgeries of the Snake Head: A Collection of Case Studies  
           Susan Horton

4:00-4:15  Catheterization of the Coccygeal Vein in Lizards and Tail Necrosis  
           Nicola Di Girolamo

4:15-4:30  Medical and Surgical Management of Traumatic Injuries in Chelonians  
           Terry M. Norton

4:30-4:45  The Under Appreciated Herpetile and Invertebrate Emergency  
           Erica Mede

4:45-5:00  Single surgeon coelioscopic orchiectomy of desert tortoises (Gopherus agassizii) for population management  
           Laila M. Proença

Committee Meetings

7:30-8:30  ARAV Editorial Board  
           Laredo 1

8:30-10:00 ARAV Education Committee  
           Laredo 1

7:30-8:30  ARAV Legislative/Animal Welfare Committee  
           Yucatan 1

8:30-10:00 ARAV International Committee  
           Yucatan 1

7:30-8:30  ARAV Membership/PR Committee  
           Laredo 2

8:45-10:30 ARAV Development Committee  
           Laredo 2
TUESDAY, OCTOBER 21

6:45-7:45  Past President’s Breakfast  Coronado G
7:00-8:00  Poster Viewing  Fiesta 6
7:00-8:00  Continental Breakfast  Fiesta Lobby
8:00-11:00  VIN Cyber Café  Sierra 2

ARAV
MORNING SESSIONS

Mixed Bag  Fiesta 6

Session Co-chairs: Richard Funk, Nicola Di Girolamo

8:00-8:15  Pigment-forming Tumors in Reptiles: Light Regime and Its Dark Sides  Kim Oliver Heckers
8:15-8:30  Diagnosis and Laparoscopic Repair of Traumatic Pulmonary Tears Associated With Non Responsive Positive Buoyancy in Sea Turtles  Michael T. Walsh
8:30-8:45  Plight of the Polynesian Tree Snail (Partula nodosa): A Small Snail in Need of Big Help  Alexandra Goe
8:45-9:00  In Vitro Efficacy of Cidofovir and Acyclovir against Frog Virus 3  Sara Ferguson
9:00-9:15  Megalocytivirus Infections in Fish: An Overview, Select Clinical Cases, and Management  Roy P. E. Yanong
9:15-9:30  Comparison of Induction and Recovery Parameters Between Isoflurane in 100% Oxygen and 21% Oxygen in Bearded Dragons (Pogona vitticeps)  Sarah M. Churgin
9:30-10:00  Poster Presentations
10:00-10:30  Beverage Break Service  Fiesta Lobby

ARAV/AEMV

ARAV/AEMV Joint Session  Fiesta 6

Session Chair: Diane McClure

10:30-11:00  Assessing the palatability and digestibility of a semi-moist diet in bearded dragons (Pogona vitticeps)  Daniel Loper
11:00-11:30  Dragon Breath: Periodontal Disease in Central Bearded Dragons (Pogona vitticeps)  Shane Simpson
11:30-12:30  Long-Term Oral Clarithromycin Administration to Subclinical Mycoplasma PCR-Positive Forsten’s Tortoises (*Indotestudo forstenii*) And Sulawesi Forest Turtles (*Leucocephalon yuwonoi*)  
Christy Rettenmund

12:00-12:45  Box Lunch  
Coronado Lobby H-J  
Must pick-up before boarding buses  
Must turn in **Zoo Day Ticket** to get Park Pass

12:05  Zoo Trip begins  
Must turn in ticket on bus to get Park Pass  
Disney’s Animal Kingdom
WEDNESDAY, OCTOBER 22

6:30-7:30  Joint Executive Officers
Conference Planning Meeting  Coronado B
7:00-8:00  Continental Breakfast  Veracruz B
7:00-5:00  Exhibit Hall Open  Veracruz B
8:00-11:00  Vin Cyber Cafe  Sierra 2

ARAV

MORNING SESSIONS

Master Classes  Fiesta 6
Session Co-chairs: Jill Heatley/Karina Mathes

8:00-8:30  The Chelonian Shell in Health and Disease:
It’s What Outside That Counts  Bruce S Levine
8:30-9:00  Gross Lesion Recognition
for the Reptile Clinician  Michael M. Garner
9:00-9:30  The Use of Diagnostic Cytology
in Reptile Medicine  Nicole Stacy
9:30-10:00  Review and Update on
Diseases/Syndromes of
Free-ranging Herpetofauna  Sonia M. Hernandez
10:00-10:30  Beverage Break Service  Veracruz B

Pharmacology  Fiesta 6
Session Co-chairs: La’Toya Latney/Franciscus Scheelings

10:30-10:45  Pharmacokinetics and Pharmacodynamics
Assessments of Tapentadol in
Yellow-Bellied Slider Turtles
(Trachemys Scripta Scripta)  Tommaso Giorgi
10:45-11:00  Evaluation of intramuscular
alfaxalone in three Australian
frog species (Litoria caerulea,
Litoria aurea, Litoria booroolongensis)  Izidora Sladakovic
11:00-11:15  Alfaxalone Use in Xenopus laevis:
Comparison of IV, IM, IP Injections and
Water Immersion of Alfaxalone with
Doses of 18 mg/kg and 18 mg/L  Eva Hadzima
11:15-11:30  Lanthanum carbonate octahydrate as a feed
additive for reptiles with renal disease  Petra Koelle
11:30-11:45  The Practical Use of Intranasal
Anesthesia in Tortoises and Terrapins  Zdenek Knotek
Observations on Plasma Concentrations of Gentamicin, Clarithromycin, Tobramycin, and Oxytetracycline During Clinical Use in Kemp's Ridley Turtles

Charles Innis

12:00 AAZV / ARAV / AEMV Joint Lunch Veracruz A
Ticket required

AFTERNOON SESSIONS

In Depth Session Fiesta 6

Session Chair: Stacey Leonatti Wilkinson

1:30-2:15 Skeletal Anatomy and Function in Reptiles Jeanette Wyneken
2:15-3:00 Reptiles - Bones - Clinical Considerations: Part 1 Doug Mader
3:00-3:30 Beverage Break Service Veracruz B
3:30-4:15 Reptiles - Bones - Clinical Considerations: Part 2 Doug Mader
4:15-5:00 Review of Musculoskeletal Pathology in Reptiles Drury Reavill
6:30-9:30 ARAV/AEMV Banquet Coronado J
6:30 Cocktail Hour, Dinner is 7:30-9:30 Ticket required
THURSDAY, OCTOBER 23

7:00-7:45  ABVP R/A Diplomates & ABVP CEM Diplomates Breakfast  
Coronado E-F Lobby

7:00-8:00  Continental Breakfast  
Veracruz B

7:00-3:45  Exhibit Hall Open  
Veracruz B

8:00-11:00  VIN Cyber Café  
Sierra 2

3:45  Poster Removal and Exhibit Hall breakdown  
Central Registration Area

ARAV

MORNING SESSIONS

Case Reports  
Fiesta 6

Session Co-chairs: Adolf Maas/Byron de la Navarre

8:00-8:10  Global Ranavirus Consortium: Advancing Science Through Collaboration  
Tom Waltzek

8:10-8:20  Arenavirus Associated Inclusions in a Peripheral Odontogenic Fibromyxoma in a Red-tail Boa  
Tom Hellebuyck

8:20-8:30  Recurrent Keratinizing Basal Cell Carcinoma in a Hermann's Tortoise (Testudo hermanni)  
Tom Hellebuyck

8:30-8:40  Rhabdomyolysis associated with a mortality event of Barton Springs Salamanders  
J Jill Heatley

8:40-8:50  Correction of a tortoise (Geochelone sulcata) shell deformity using an external compression-distraction device  
Dan H. Johnson

8:50-9:00  Subcutaneous abscesses associated with Devriesea agamarum in a Fiji banded iguana (Brachylophus fasciatus)  
Cedric B. Larouche

9:00-9:10  Successful Management of Mycobacterium chelonae Infection in an Inland Bearded Dragon (Pogona vitticeps)  
Stacey R. Leonatti

9:10-9:20  Carapacial dyskeratosis and deformation in Geochelone pardalis  
Matteo Oliveri

Sarah E. Wills

9:30-9:40  Facial Mast Cell Tumor in a Green Iguana (Iguana iguana)  
Anneliese Strunk
9:40-9:50 Cardiomyopathy and pericardial effusion in a Beauty Snake 
(Elaphe taeniura spp.) Iain Cope

9:50-10:00 Successful treatment of a bilateral corneal calcification in an Aldabra Tortoise 
(Aldabrachelys gigantea) Huynh Minh

10:00-10:30 Beverage Break Service Veracruz B

Fish Medicine Fiesta 6
Session Co-chairs: Leigh Clayton/Heather Bjornebo

10:30-11:00 Submerge Yourself: Fish Medicine Basics Roy Yanong
11:00-11:30 Diagnostic Hematology of Fish: review and tips Nicole Stacy
11:30-12:00 Current Understanding of Fish & Invertebrate Anesthesia and Analgesia Kurt K. Sladky

12:00 Lunch ARAV / AEMV (AEMV Business meeting Ticket required) Coronado J

AFTERNOON SESSIONS

Session Co-chairs: Lionel Schilliger/Kristi Krause

Diagnostics & Imaging Fiesta 6

1:30-1:45 The Effects of Intracoelomic Carbon Tetrachloride on Liver Parameters and the Comparisons Between Endoscopic Liver Biopsy, Ultrasound-Guided Fine Needle Aspiration, and MRI for the Diagnoses of Liver Disease in Green Iguanas (Iguana iguana) Rodney Schnellbacher

1:45-2:00 Smartphone-based ECG Monitor: Feasibility and Applications in Herpetological Medicine Lionel Schilliger

2:00-2:15 Development and Validation of a Novel Taqman Qpcr for Agamid Adenovirus 1 in the Inland Bearded Dragon (Pogona Vitticeps) Daniel V. Fredholm

2:15-2:30 Coelioscopic Gender Identification of Juvenile Chelonians: A New Clinical Service Stephen J Divers

2:30-2:45 Effects of storage temperature and time on clinical biochemical parameters from plasma of Dumeril’s boas (Boa dumerili) Trevor T. Zachariah

32
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:45-3:00</td>
<td>Fibrinogen Reference Interval in Ornate Box Turtles (<em>Terrepene ornata ornata</em>) and Quantification During Inflammation</td>
<td>Lily Parkinson</td>
</tr>
<tr>
<td>3:00-3:30</td>
<td><strong>Beverage Break Service</strong></td>
<td>Veracruz B</td>
</tr>
<tr>
<td>3:45</td>
<td><strong>Removal of Posters and Exhibit Hall breakdown</strong></td>
<td>Central Registration Area</td>
</tr>
<tr>
<td>3:30-3:45</td>
<td>Select Blood analyte changes of turtles from a biodiesel spill</td>
<td>Jordan Gentry</td>
</tr>
<tr>
<td>3:45-4:00</td>
<td>Effects of ultraviolet B radiation on bone density in leopard geckos (<em>Eublepharis macularius</em>)</td>
<td>James G. Johnson III</td>
</tr>
<tr>
<td>4:00-4:15</td>
<td>A comparison of white blood cell cytochemical staining characteristics and hematologic parameters between geographically isolated snake species within the family Pythonidae.</td>
<td>Sean Michael Perry</td>
</tr>
<tr>
<td>4:15-4:30</td>
<td>Surgical implantation of coelomic radio transmitters and immediate post release data in Chinese giant salamanders, Andrias davidianus</td>
<td>Ruth Marcec</td>
</tr>
<tr>
<td>4:30-4:45</td>
<td>Preservation of Red Blood Cells in the American Alligator (<em>Alligator Mississipiensis</em>) Over Time and in Two Different Anticoagulants</td>
<td>Jessica A. Emerson</td>
</tr>
<tr>
<td>4:45-5:00</td>
<td>Hematologic, Plasma Biochemistry and Acid-Base Analysis of Negev Desert Tortoises (<em>Testudo Werneri</em>)</td>
<td>David Eshar</td>
</tr>
<tr>
<td>5:00-5:15</td>
<td>Q &amp; A, Closing Remarks</td>
<td></td>
</tr>
</tbody>
</table>
AEMV SCIENTIFIC PROGRAM
MONDAY, OCTOBER 20

7:00-8:00  Poster Viewing  Yucatan 3
7:00-8:00  Continental Breakfast  Veracruz Lobby
8:00-11:00  VIN Cyber Café  Sierra 2

AEMV
MORNING SESSIONS

7:45-8:00  Special Opening  Coronado H
Must be in seats at 7:45, late arrivals go to Yucatan 1-3

8:00-8:15  Welcome and Opening Remarks

AEMV Session 1: Research  Yucatan 1-3

Session Chair: Chris Griffin

8:15-8:30  Pharmacokinetics of buprenorphine in guinea pigs and the challenges associated with using guinea pigs as an experimental model  Miranda Jo Sadar

8:30-8:45  Characterization and functional analyses of two ferret insulinoma cell lines  Nico Schoemaker

8:45-9:00  Pharmacokinetics of metoclopramide after intravenous, intramuscular, subcutaneous and per rectum administration in rabbits  Simone Rota

9:00-9:15  Utility of IgM titers with IgG and CRP quantitation in the diagnosis of suspected *Encephalitozoon cuniculi* infection in rabbits  Carolyn Cray

9:15-9:30  Cytologic analysis of bronchioalveolar lavage fluid acquired by bronchoscopy in healthy ferrets (*Mustela putorius furo*) and standardization of cellular counts using urea as a marker of dilution  Marjorie Bercier

9:30-9:45  Feasibility of a continuous glucose monitoring system evaluation in the pet rabbit  Jörg Mayer

9:45-9:55  Q and A

9:55-10:00  Presentation of the Oxbow Exotic Mammal Health Award

10:00-10:30  Beverage Break Service  Fiesta Lobby
AEMV Session 2: New Ideas & Procedures

Session Chair: Laila Proenca

10:30-10:45 Sildenafil citrate as a pulmonary protectant in chronic murine Mycoplasma pulmonis infection
S. Emmanuelle Knafo

10:45-11:00 Influence of morphine on the rabbit gastrointestinal tract
Helene Deflers

11:00-11:15 At admission hypothermia and mortality in hospitalized pet rabbits: why measurement of body temperature is critical
Nicola Di Girolamo

11:15-11:30 Non-invasive blood pressure measurement in ferrets using high definition oscillometry
Yvonne van Zeeland

11:30-11:45 A novel and helpful addition to your rabbit abscess protocols
Susan Horton

11:45-12:00 Step by step guide to performing a blood transfusion in a rabbit
Sari Kanfer

11:45-12:00 Q&A with Presentation of the Oxbow Exotic Mammal Health Award

12:00-1:30 **ARAV / AEMV Lunch (ARAV Business meeting)** Coronado J
*Ticket required*

**AFTERNOON SESSION**

AEMV Session 3: Imaging

Session Chair: Peter Fisher

1:30-1:45 Radiographic & ultrasonographic measurements in healthy domestic companion ferrets
Jantra Ngosuwan Suran

1:45-2:00 CT-GFR as a new technique to evaluate renal function in rabbits
Graham Zoller

2:00-2:15 Utilizing radiographic imaging to predict outcome in rabbits with gastrointestinal motility disorders
Holly Richards

2:15-2:30 Rabbit sinusitis
Aidan Raftery

2:30-2:45 Measuring the level of agreement in evaluating bone mineral density using computed tomography imaging and dual-energy X-ray absorptiometry in the rabbit (Oryctolagus cuniculus) and guinea pig (Cavia porcellus) Skulls
Megan Watson
2:45-3:00  Q and A

3:00-3:30  **Beverage Break Service**  
Fiesta Lobby

**AEMV Session 4: Case Reports Surgery**  
Yucatan 1-3

Session Chair: Angela Lennox

3:30-3:45  Mastectomy and pouch ablation for the treatment of mammary neoplasia in a pair of related sugar gliders (*Petaurus breviceps*)  
Julia Whittington

3:45-4:00  Surgical management of metatarsal fractures in a Chinchilla (*Chinchilla lanigera*)  
Isabelle Desprez

4:00-4:15  Acanthomatous ameloblastoma in a rabbit treated by surgery and radiation therapy  
Minh Huynh

4:15-4:30  Ureteral stenting for management of ureterolithiasis in a domestic rabbit (*Oryctolagus cuniculus*)  
Isabelle Langlois

4:30-4:45  Gastropexy to Manage Recurrent GDV in a Guinea Pig  
Alexandra Kilgore

4:45-5:00  Q and A
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:45-7:45</td>
<td>Past President’s Breakfast</td>
<td>Coronado G</td>
</tr>
<tr>
<td>7:00-8:00</td>
<td>Poster Viewing</td>
<td>Yucatan 3</td>
</tr>
<tr>
<td>7:00-8:00</td>
<td>Continental Breakfast</td>
<td>Fiesta Lobby</td>
</tr>
<tr>
<td>8:00-11:00</td>
<td>VIN Cyber Café</td>
<td>Sierra 2</td>
</tr>
</tbody>
</table>

### AEMV

#### MORNING SESSIONS

**AEMV Session 1: General Session**

Session Chair: Nico Schoemaker

- **8:00-8:15** Epidemiology of gastrointestinal stasis in pet rabbit  
  Minh Huynh
- **8:15-8:30** Preliminary reference intervals for serum aldosterone concentrations in intact and neutered ferrets (*Mustela putorius furo*)  
  Paolo Selleri
- **8:30-8:45** Evaluation of select diets currently fed to pet sugar gliders (*Petaurus breviceps*) in North America  
  Ellen Dierenfeld
- **8:45-9:00** Evaluating the clinical and physiological effects of long term ultraviolet B radiation on rabbits (*Oryctolagus cuniculus*)  
  Megan Watson
- **9:00-9:15** A simple technique for removal of urethroliths in the female guinea pig  
  Angela Lennox
- **9:15-9:30** Update on the use of therapeutic laser treatment for exotic companion mammals  
  Tracey Ritzman
- **9:30-9:45** Unusual case presentations  
  Jennifer Graham
- **9:45-10:00** Q and A
- **10:00-10:30** Beverage Break Service

**ARAV/AEMV**

**ARAV/AEMV Joint Session**

Session Chair: Diane McClure

- **10:30-11:00** Assessing the palatability and digestibility of a semi-moist diet in bearded dragons (*Pogona vitticeps*)  
  Daniel Loper
- **11:00-11:30** Dragon Breath: Peridontal Disease in Central Bearded Dragons (*Pogona vitticeps*)  
  Shane Simpson
11:30-12:30  Long-Term Oral Clarithromycin Administration
to Subclinical Mycoplasma PCR-Positive
Forsten’s Tortoises *(Indotestudo forstenii)*
And Sulawesi Forest Turtles *(Leucocephalon yuwonoi)*

Christy Rettenmund

12:00-12:45  Box Lunch, Must pick-up before
boarding buses
Coronado Lobby H-J

Must turn in Zoo Day Ticket to get Park Pass

12:05-9:30  Zoo Trip begins
Must turn in ticket on bus to get
Park Pass
Disney’s Animal Kingdom
Wednesday, October 22

6:30-7:30  Joint Executive Officers Conference Planning Meeting  Coronado B
7:00-8:00  Continental Breakfast  Veracruz B
7:00-5:00  Exhibit Hall Open  Veracruz B
8:00-11:00  Vin Cyber Cafe  Sierra 2

AEMV

Morning Sessions

AEMV Session 1: Mixed Bag  Yucatan 1-3
Session Chair: Ynonne van Zeeland
8:00-9:00  Zoonotic diseases important for exotic pet veterinarians  Thomas Donnelly
9:00-10:00  Radiography of a ferret thorax and abdomen - easy to read?  Vladimir Jekl
10:00-10:30  Beverage Break Service  Veracruz B

AEMV Session 2: GI Topics  Yucatan 1-3
Session Chair: Jennifer Graham
10:30-11:15  Ferret liver disease  Minh Hunyh
11:15-12:00  Flotac, a new highly sensitive technique for parasitological diagnosis in exotic companion mammals  Dario d'Ovidio
12:00  AAZV / ARAV / AEMV Joint Lunch  Veracruz B
Ticket required

Afternoon Sessions

AEMV Session 3: Lesions, Small and Large  Yucatan 1-3
Session Chair: Dan Johnson
1:30-2:15  Gross lesion recognition for the small mammal clinician  Michael Garner
2:15-3:00  Masterclass small mammal endocrinology  Nico Schoemaker & Yvonne van Zeeland
3:00-3:30  Beverage Break Service  Veracruz B
AEMV Session 4: Endoscopy  
Yucatan 1-3

Session Chair: Dan Johnson

3:30-5:00  Rabbit diagnostic endoscopy  
Laila Proença & Steve Divers

6:30-9:30  ARAV/AEMV Banquet  
6:30 Cocktail Hour, Dinner is 7:30-9:30  
Coronado J

Ticket required
THURSDAY, OCTOBER 23

7:00-7:45  ABVP R/A Diplomates & ABVP CEM Diplomates Breakfast  Coronado E-F Lobby
7:00-8:00  Continental Breakfast  Veracruz B
7:00-3:45  Exhibit Hall Open  Veracruz B
8:00-11:00  VIN Cyber Café  Sierra 2
3:45  Poster Removal and Exhibit Hall breakdown  Central Registration Area

AEMV

MORNING SESSIONS

AEMV Session 1: Medicine  Yucatan 1-3
Session Chair: Paollo Selleri

8:00-8:15  Unusual viral dermatitis in a rat  Charly Pignon
8:15-8:30  Clinical management of phimosis in a chinchilla  Anna Martel-Arquette
8:30-8:45  Cystine urolithiasis in the ferret  Peter Fisher
8:45-9:00  Husbandry risk factors associated with hock pododermatitis in UK pet rabbits (Oryctolagus cuniculus)  Elisabetta Mancinelli
9:00-9:15  First description of atrial septal defect in a rabbit  Nicola Di Girolamo
9:15-9:30  Hepatitis E Virus: an emerging potential zoonotic disease carried by ferrets  Cathy Johnson-Delaney
9:30-9:45  Successful treatment of an abscess and a peritonitis associated with Pseudomonas luteola in a ferret (Mustela putorius furo)  Charly Pignon
9:45-10:00  Q and A
10:00-10:30  Beverage Break Service  Veracruz B

AEMV Session 2: Case Series  Yucatan 1-3
Session Chair: David Eshar

10:30-10:45  Urolithiasis in chinchillas: 15 cases (2007-2011)  Anna Martel-Arquette
10:45-11:00  Unusual presentations of Pasteurella multocida abscesses in rabbits  Minh Huynh
11:00-11:15  Malignant melanomas in domestic rabbits (Oryctolagus cuniculus): 27 cases  Kristian Krause

41
Diagnosis and successful treatment of *Eimeria* infection in a group of Black-Tailed Prairie Dogs (*Cynomys ludovicianus*)  

David Eshar

Clinical diseases seen in pet Black-tailed prairie dogs (*Cynomys ludovicianus*) a retrospective study in 206 animals.  

Michael Garner

Q and A

**AFTERNOON SESSIONS**

**AEMV Session 3: Single Case Reports**

Session Chair: Chris Griffin

1:30-1:45  Treatment and clinical outcome of systemic coronavirus-associated disease in two ferrets (*Mustela putorius*) treated with polyprenyl immunostimulant  

Julia Whittington

1:45-2:00  Hind-limb paresis due to the arterial thromboembolism in a rabbit  

Vladimir Jekl

2:00-2:15  Hydronephrosis secondary to congenital bilateral ureteral stenosis in a ferret  

Jaume Martorell

2:15-2:30  Apocrine anal sac adenocarcinoma with a mild hypercalcemia in a ferret  

Jaume Martorell

2:30-2:45  Demodicosis in two rats  

Charly Pignon

2:45-3:00  Q and A

3:00-3:30  **Beverage Break Service**  

Veracruz B

3:45  Removal of Posters and Exhibit Hall breakdown  

Central Registration Area

**AEMV Session 4: Pathology**

Session Chair: Drury Reavill

3:30-3:45  Rectoanal papillomas in rabbits; a retrospective review  

Leila Marcucci

3:45-4:00  Urinary tract disease in the rabbit: from physiology to therapy  

Emily McConnelly

4:00-4:15  Dyspnea in degus – is it really infection?  

Vladimir Jekl
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:15-4:30</td>
<td>A retrospective study of tumors in guinea pigs (<em>Cavia porcellus</em>)</td>
<td>Michael Garner</td>
</tr>
<tr>
<td></td>
<td>submitted to a Zoological Pathology Service</td>
<td></td>
</tr>
<tr>
<td>4:30-4:45</td>
<td>Angiocentric lymphoma in a domestic ferret (<em>Mustela putorius furo</em>)</td>
<td>Karen Schachterle</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4:45-5:00</td>
<td>Lymphoplasmacytic gastritis in ferrets: case series</td>
<td>Lauriane Devaux</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5:00-5:15</td>
<td>Closing Remarks</td>
<td>Chris Griffin</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AAZV

The use of wildlife database retrospective review and surveillance systems in the recent outbreak of rabies in Taiwan

Yuan-peng Kuan

Serenological response in red fox (Vulpes vulpes) to the canine distemper vaccination with Recombitek C6

Ezequiel Hidalgo

Cryopreservation of semen from captive golden-headed lion tamarins (Leontopithecus chrysomelas)

Paloma Henrique

Attwater’s prairie-chicken (Tympanuchus cupido attwateri) recovery program after 22 years:
Hope booms eternal

Holly Haefele

Metastatic mineralization in 4 prehensile-tailed porcupines (Coendou prehensilis)

Samantha Sander

Dilated cardiomyopathy in captive born slender-tailed meerkats (Suricata suricatta)

Ashley Jones

Hematology and clinical chemistry reference intervals of Reeve’s turtle (Mauremys reevesii)

Yuan-peng Kuan

Colonic impactions in Iberian ribbed newts (Pleurodeles waltl)

Chelsea Anderson

Development of a database of fetal ultrasound measurements for the creation of orangutan-specific (pongo spp.) growth curves and determination of parturition dates

Brittany Rizzo

Comparison of three anesthetic protocols for captive Andean hairy armadillo (Chaetophractus nationi)

Gianmarco Rojas

Evaluating the different methods for reading complete blood counts in fish: Using agreement analysis to determine their value

Anne Rivas

Epidemiology of naso-oral squamous cell carcinoma in Francois’ langurs (Trachypithecus francoisi)

John Flanders

Body condition scoring in the Houston toad (Bufo [Anaxyrus] houstonensis)

Catherine Bianchi

Medical management of blastomycosis in a wild-born young polar bear (Ursus maritimus)

Roy Burns

Evaluation of diagnostic tests for ante-mortem tuberculosis screening in captive sloth bears (Melursus ursinus)

Shanmugam Arun Attur

Lungworm infection in stranded beluga (Delphinapterus leucas) from the St. Lawrence estuary (Quebec, Canada)

Christopher Scala

Using voided urine to monitor kidney function in non-domestic felids at Taronga Zoo, Australia

Kimberly Vinette Herrin
Development of a quantitative PCR diagnostic test for a novel adrenal coccidian parasite of leatherback sea turtles (*Dermochelys coriacea*)

Sara Ferguson

Development of a quantitative PCR assay for a novel adenovirus in the box turtle

Stella Blum

Evaluation of endoscopic tubectomy for sterilization of female Formosan macaques (*Macaca cyclopis*)

Pin-Huan Yu

Laboratory diagnosis of *Cytaxzoon felis* infection in lions (*Panthera leo*) in Bannerghatta biological park

Sujay Suresh

Co-infection with California sea lion adenovirus 1 and a novel polyomavirus in a Hawaiian monk seal (*Monachus schauinslandi*)

Galaxia Cortés-Hinojosa

Equine herpesvirus in polar bears (*Ursus maritimus*) and exotic equids housed in US AZA institutions

John Flanders

Identification and phylogenetic analysis of two novel *Microcebus murinus* herpesviruses and posterior qPCR assay development

Patricia Kunze

Biomechanical Analysis of Different Adhesive Systems on the Beak of the Toco Toucan (*Ramphastos toco*)

Patricia Kunze

Technique for Repeated Hemolymph Sampling From the Madagascar Hissing Cockroach (*Gromphadorhina portentosa*)

Lauren Kao

Results of the 2012-2013 Megavertebrate Analgesia Survey: Hippopotamus and Giraffe

Mathew Boothe

Hypercalcemia and Metastatic Mineralization Associated With Renal Disease in Rock Hyraxes (*Procavia capensis*)

James Johnson

Development of Criteria for Categorizing Ultrasonographic Images of Uterine Health Assessments in the Southern Stingray (*Dasytis americanus*)

Shiho Sumigama

Anesthetic Induction of Captive Tigers Using Atropine Sulfate-Xylazine-Ketamine Combination Intravenously

Sanath Krishna

Administration of 5% Human Serum Albumin in a Critically Ill Aldabra Tortoise (*Aldabrachelys gigantea*) With Hypoalbuminemia

Yen-Lin Lee

Efficacy of Gonadotropin-Releasing Hormone (*GnRH*) Vaccine (*GonaCon™*) on Reproduction Function in Female Vervet Monkeys (*Chlorocebus aethiops*)

Emily Hall

Descriptive Epidemiological Study of Koala Retrovirus at the San Diego Zoo over A 20 Year Period

Nicole Lewis

Infrared Thermography for Detection of Bumblefoot (*Pododermatitis*) in Penguins; Unsuccessful Attempt to Validate as a Diagnostic Test.

Ann Duncan
Comparison of Three Different Anesthetic Protocols in the American Alligator (*Alligator mississippiensis*)  
Brian Stockinger

Retrospective Study of Morbidity in Koalas (*Phascolarctos cinereus*) Housed at San Diego Zoo Between 1967 and 2013  
Andres Alejandro Castro

What's in a Pituitary? The Importance of the Pituitary Gland in Diagnostic Medicine and Research  
Dalen Agnew

ARAV

Liver and Kidney Changes Related to Fish Diet Feeding of Giant South American Turtles (*Podocnemis expansa*)  
Luciana Batalha de Miranda Araujo

A Rare Case: Surgical Management of Cystolithiasis in a Domestic Bowsprit Tortoise (*Chersina angulata*)  
C.-C. Chu

Atypical Clinical Presentation of a Metastatic Gastric Neuroendocrine Carcinoma in a Bearded Dragon (*Pogona vitticeps*)  
Tom Hellebuyck

Analgescic Efficacy and Respiratory Effects of Transdermal Fentanyl in Ball Pythons (*Python regius*)  
Rima Kharbush

The Etiology, Physiology and Preventive Treatment of Pre-ovulatory Follicular Syndrome in Veiled Chameleons  
Zdenek Knotek

First Case of Mixed Infection with *Nannizziopsis (Chrysovporium)* guarroi and Devriessea *agamarum* in an Inland Bearded Dragon  
Zdenek Knotek

Topical Anesthesia with Lidocaine/Prilocaine for Surgical Treatment of Prolapsed Penis in Chelonians  
Zdenek Knotek

Well-differentiated Small Cell Alimentary Lymphoma in a 17-yr-old Female Shingleback Skink (*Tiliqua rugosa*)  
Nicolas Maldonado

Arenaviruses in Boas and Pythons in Germany  
Rachel E. Marschang

Foreign Bodies in Reptiles and Amphibians: Diagnostic and Treatment Options  
Karina Mathes,

Severe Disseminated Fibropapillomatosis in a Rehabilitating Loggerhead Sea Turtle (*Caretta caretta*)  
Annie Page-Karjian

Squamous Cell Carcinoma in a Central Bearded Dragon (*Pogona vitticeps*)  
Sarah Pellett

Coelioscopic-assisted Sterilization of Reproductive Healthy and Diseased Female Tortoises  
Laila Proença

Humoral Immune Response in Vipers  
P. Regner

Cross Reactivity of Reptile Hyperimmune Antiserum Against Different Serum of Reptiles, Birds, and Mammals  
P. Regner

Does Geographic Distance Between Host Population and Isolate Location Equate to Ranavirus Pathogenicity?  
Patrick Neal Reilly
Plasma Concentration of Enrofloxacin and Its Metabolite Ciprofloxacin in Yellow-Bellied Slider Turtles (Trachemys scripta scripta) After Single Intracoelial Injection of Enrofloxacin

Novel Shell Bandaging in the Aquatic Turtle

Effectiveness of Low Level Laser Therapy on Reptilian Wound Healing

Seropositivity to Encephalitozoon cuniculi in healthy rabbits as a prognostic indicator of disease development and survival

Simone Rota

Lara Sypniewski

Lara Sypniewski

Emma Keeble
EXHIBITORS

Abaxis
Addison Biological Laboratory, Inc.
Advanced Monitors Corp
Animal Care Equipment & Services
Animal Necessity, LLC
Avian & Exotic Animal Clinical Pathology Labs
Avian & Wildlife Laboratory at the University of Miami
Avid Identification Systems, Inc.
AZA Wildlife Contraception Center (WCC)
Central Nebraska Packing, Inc
Companion® Therapy Laser
Core Imaging
Cutting Edge Laser Technologies
DanInject Dart Guns
Diamondback Drugs
DRE Veterinary
E.I. Medical Imaging
Ellman International Inc.
Elsevier
Essential Pharmacy Compounding (EPC)
First Veterinary Supply
FUJIFILM Medical Systems U.S.A., Inc.
Harrisons’ Pet Products
Hitachi Aloka Medical America, Inc
HMS Zoo Diets, Inc.
Hot Dog Patient Warming
ISIS (International Species Information System)
Karl Storz - Endoskope
Lafeber Company
Marion Zoological
Mazuri
MDS Incorporated
Medical Engineering and Development, Inc.
Meds for Vets Pharmacy

www.abaxis.com/veterinary
www.addisonlabs.com
www.admon.com
www.animal-care.com
www.animalnecessity.com
avianexoticlab.com
www.cpl.med.miami.edu
http://avidid.com
www.stlzoo.org/contraception
www.nebraskabrand.com
www.companiontherapy.com
http://core-imaging.com
www.CELasers.com
www.DanInjectDartGuns.com
www.diamondbackdrugs.com
www.dreveterinary.com
www.eimedical.com
www.ellman.com
www.us elsevierhealth.com
www.epcvet.com
www.firstveterinarysupply.com
www.fujiprivatepractice.com
www.HEALx.com
www.alokavet.com
hmszoo@adamswells.com
www.vetwarming.com
http://www.isis.org
https://www.karlstorz.com
www.lafeber.com
www.marionzoological.com
www.mazuri.com
www.mdsvet.com
www.med-engrg.com
www.medsforvets.com
MinXray www.minxray.com
Nasco’s Farm & Ranch www.eNsco.com/farmandranch
NuZu Feed www.nuzufeed.com
Oxbow Animal Health www.oxbowanimalhealth.com
PetAg, Inc. www.petag.com
Pharmaceutical Specialties, Inc. www.psipharmacy.com
Reliable Protein Products www.zoofood.com
Research Associates Laboratory, Inc. www.vetdna.com
RICA Surg Products www.ricasurgical.com
RoadRunner Pharmacy www.roadrunnerpharmacy.com
Rx Vitamins, Inc. www.rxvitamins.com
scil animal care company USA www.scilvet.com
Silent Heroes Foundation (SHF) www.thesilentheroes.org
Sound-Eklin www.soundeklin.com
Supreme Petfoods www.supremepetfoods.com
SurgiTel www.SurgiTel.com
Sustainable Swine Resources www.sustainableswineresources.com or www.carnivoreessentials.com
Tomahawk Live Trap WWW.LIVETRAP.COM
TRI-DD www.tri-dd.com
Universal Imaging www.universalimaginginc.com
Universal Surgical Instruments www.universalsurgical.com
University of Florida, College of Veterinary Medicine, Zoological Diagnostic Laboratory http://labs.vetmed.ufl.edu/sample-requirements/zoo-med-infections
University of Florida - Maples Center for Forensic Medicine http://maples-center.ufl.edu
Veterinary PixelWorks, Inc. www.theyetworks.com
Vet Ray Technology by Sedecal www.vetray.com
Vet Rocket, LLC www.vetrocket.com
Virbac Corporation / North America http://www.virbacferretsusa.com
Zoo Assured Company ZooAssured.com
Zoologix, Inc. www.zoologix.com
Zoo Med Laboratories, Inc. www.zoomed.com
ZooPharm, Inc., Wildlife Pharmaceuticals, Inc. www.zoopharma.net
ZuPreem/Veterinary Specialty Products www.zupreem.com; www.vetspecialtyproducts.com
DR. EMIL P. DOLENSEK AWARD RECIPIENTS

1991  James W. Foster
1993  Wilbur B. Amand
1994  Mitchell Bush
1995  Murray E. Fowler
1997  William Karesh
1998  Werner Heuschele
1999  Richard Montele
2001  Linda Munson
2002  R. Eric Miller
2003  Michael Stoskopf
2004  James Carpenter
2005  Elizabeth Williams & E. Thomas Thorne
2006  Michael R. Cranfield
2007  Scott Citino
2008  Michael R. Loomis
2009  Donald L. Janssen
2010  David Jessup
2011  Elliott Jacobson
2012  Not Awarded
2013  Bonni Raphael

DUANE E. ULLREY ACHIEVEMENT AWARD RECIPIENTS

1999  Duane E. Ullrey
2001  Ulysses S. Seal
2002  Susan D. Crissey
2003  William Lance
2004  JoGayle Howard
2005  Oliver A. Ryder
2006  Bill L. Lasley
2007  David Wildt
2008  Linda Lowenstine
2012  Mike Garner
2013  J Andrew Teare
AAZV PAST PRESIDENTS

Patricia O'Connor Halloran, DVM 1946-1957
Werner Heuschele, DVM 1958-1959
Charles Gandal, DVM 1960-1962
Weaver Williamson, DVM 1963-1964
Patricia O'Connor Halloran, DVM 1965
Lester Fisher, DVM 1966-1969
Gordon Hubbell, DVM 1970
Paul Chaffee, DVM 1971
Earl Schobert, DVM 1972
Fred Soifer, DVM 1973
Jack Brundrett, DVM 1974
Murray Fowler, DVM 1975
William Kirksey, DVM 1976
William Boever, DVM 1977
Robert Temple, DVM 1978
William Satterfield, DVM 1979
Wilbur Amand, VMD 1980
William Rapley, DVM 1981
James Foster, DVM 1982
Emil Dolensek, DVM 1983
Phil Robinson, DVM 1984
Mitchell Bush, DVM 1985
Mary Mainster, DVM 1986
Lee Simmons, DVM 1987
Thomas Burke, DVM 1988
Jerry Haigh, MRCVS 1989
John Olsen, DVM 1990
Richard Cambre, DVM 1991
William Foster, DVM 1992
Janis Joslin, DVM 1993
Donald Janssen, DVM 1994
Michael Loomis, DVM 1995
R. Eric Miller, DVM 1996
Peregrine Wolff, DVM 1997
Robert Cook, VMD 1998
James Carpenter, MS, DVM 1999
Michael Barrie, DVM 2000
Scott B. Citino, DVM 2001
Raymond Wack, DVM 2002
Randall Junge, DVM 2003
Nadine Lamberski, DVM 2004
Joe Flanagan, DVM 2005
Michele Miller, DVM 2006
Ed Ramsay, DVM 2007
Mary Denver, DVM 2008
Tom Meehan, DVM 2009
Jan Ramer, DVM 2010
Kay Backues, DVM 2011
Wm. Kirk Suedmeyer, DVM 2012
Paul Calle, VMD 2013
FUTURE MEETINGS OF THE AAZV

September 26 - October 2, 2015
Concurrent with AZA's Nutrition Advisory Group
Portland, Oregon

July 16 - 22, 2016
In conjunction with EAZWV and IZW
Atlanta, Georgia

September 23 - 29, 2017
Dallas, Texas
ARAV PAST PRESIDENTS

Thomas Boyer, DVM, DABVP (R/A) 1991-1992
Michelle Willette Frahm, DVM 1992-1993
Wm. Kirk Suedmeyer, DVM, DACZM 1993-1995
Mark Lloyd, DVM 1995-1996
Kevin Wright, DVM, DABVP (R/A) 1996-1997
Paul Raiti, DVM, DABVP (R/A) 1997-1998
Scott Stahl, DVM DABVP (Avian) 1998-1999
Stephen Divers, MRCVS, DACZM 1999-2000
Mark Mitchell, DVM, MS, PhD, DECZM (Herpetology) 2000-2001
Charles Innes, VMD, DABVP (R/A) 2001-2002
Teresa Bradley, DVM 2002-2003
Richard Funk, DVM 2003-2004
Byron de la Navarre, DVM 2004-2005
Jay Johnson, DVM 2005-2006
Leigh Clayton, DVM, DABVP (Avian; R/A) 2006-2007
Eric Klaphake, DVM, DACZM, DABVP (Avian) 2007-2008
Jeff Baier, DVM 2008-2009
Chris Griffin, DVM, DABVP (Avian) 2009-2010
Paul Gibbons, DVM, MS, DABVP (Avian; R/A) 2010-2011
Kenneth Harkewicz, VMD 2011-2012
Dana Varble, DVM 2012-2013

FUTURE MEETINGS OF THE ARAV

April 18 - 23, 2015 Paris, France
2nd International Conference of Avian, Herpetological and Exotic Mammal Medicine

August 29 - September 2, 2015 San Antonio, Texas, USA
The International AAV, AEMV and ARAV Joint Conference.

2016 - date TBD ARAV/AEMV Concurrent Conference
AEMV PAST PRESIDENTS

Karen Rosenthal, DVM 2001
Mike Dutton, DVM, DABVP, DABVP, DABVP 2002-2004
Peter Fisher, DVM, DABVP 2005
Angela Lennox, DVM, DABVP, DABVP 2006-2008
Cathy Johnson-Delaney, DVM 2008-2010
Jörg Mayer, DMV, DABVP, DECZM, DACZM 2010-2012
Chris Griffin, DVM, DABVP 2012-2014

FUTURE MEETINGS OF THE AEMV

April 18 - 20, 2015 Paris, France
2nd International Conference on Avian, Herpetological, and Exotic Mammal Medicine

August 29 - September 3, 2015 San Antionio, Texas
1st International AAV, AEMV, ARAV Joint Conference