36th Annual Conference and Expo of the Association of Avian Veterinarians (AAV 2015)

Held at ExoticsCon 2015

San Antonio, Texas, USA
29 August - 2 September 2015

Editor:

Charlotte Kirk Baer

ISBN: 978-1-5108-1425-7
# Table of Contents

## Association of Avian Veterinarians

### Section 1: AAV Plenary Sessions

- Distribution of Nebulized Fluorescein-Labeled Propylene Glycol or Saline in Pigeons (Session #258) .......... 3
- Falcons, Falconry, and Waterfowl: A Novel Pathway for Influenza Viruses (Session #399) ......................... 5
- Population Pharmacokinetics of Levetiracetam and Zonisamide in the African Grey Parrot (*Psittacus erithacus*) (Session #131) ................................................................. 7

### Section 2: AAV Hot Topics

- Evaluation of the Thermal Antinociceptive Effects and Pharmacokinetics of a Sustained-release Buprenorphine Formulation in American Kestrels (*Falco sparverius*) (Session #135) .................. 13
- *Aspergillus pseudoviridinutans*: A Novel Cause of Psittacine Aspergillosis (Session #086) ......................... 15
- Safety and Efficacy Trials of Copper Oxide Wire Particles and *Sesleria lespedeza* in a Research Population of Ring-Necked Doves and a Captive Population of Green-Winged Doves (Session #243) ........ 17
- Rheological Properties of a Sustained-release Formulation of Butorphanol in a Poloxamer 407 Base and Pharmacokinetics in Amazon Parrots (*Amazona ventralis*) (Session #154/156) ................. 19
- Beating the Heat – the Australian Way (Session #328) ............................................................................. 21
- Testing Bird Hearing: Auditory Brainstem Responses of Diving Birds (Session #171) ............................... 23
- Radiographic Evaluation of the Thoracic Girdle in Raptors Using a Novel Caudoventral 45° Craniodorsal Radiographic View (Session #224) ............................................................... 25
- Evaluation of Treatment for Severed Blood Feathers in Chickens (*Gallus gallus*) (Session #163) ............. 27
- Student Manuscript Winner: Comparison of Various Avian Euthanasia Methods (Session #402) .............. 29

### Section 3: AAV Technician Track

- Bandaging and Wound Management in Exotic Animals (Session #267) ......................................................... 33
- Monitoring and Caring for Your Avian Anesthesia Patient (Session #358) .................................................. 39
- Fecal Cytology (Session #366) .................................................................................................................... 41
- Client Handfeeding Education for the Veterinary Technician (Session #335) ............................................. 45
- Early Parrot Education: A Six-Stage Weaning Process (Session #349) ....................................................... 51
- The Importance and Efficacy of Foraging Enrichment in Psittacine Birds (Session #254) ...................... 67
- Avian Hematology: Sample Collection and Cytological Evaluation (Session #398) ................................. 69
Section 4: AAV Research

Broken Blood Feather Occurrence and Treatment in Pet Birds (Session #148) ......................................................... 79
Healthy and Feather-Damaging Grey Parrots Display Different Coping Styles (Session #259) ............................. 81
Pharmacokinetics of Amitriptyline HCL and Its Metabolites in Normal Healthy African Grey Parrots (Psittacus erithacus) and Cockatoos (Cacatua species) (Session #130) ........................................................... 83
Environmental Stability of Avian Bornavirus; pH and Drying (Session #220) ................................................................. 89
Experimental Infection of Peach-faced Lovebirds (Agapornis roseicollis) with Avian Bornavirus Genotypes II and IV (Session #162) ................................................................................................................. 91
Cardiac Troponin I as a Biomarker of Myocyte Injury in Turkeys (Session #345) ............................................................. 93
Phylogenetic Characterization of a Novel Herpesvirus Found in the Liver and Lungs of a Neonatal Chilean Flamingo with Hepatomegaly (Phoenicopterus chilensis) (Session #297) ................................................................. 95
The Identification of Novel Herpesviruses and Adenoviruses from Seabirds (Session #320) ................................................ 97
Effects of Prolonged and Repeated Anesthetic Episodes on Owl Hematology (Session #053) ................................................ 99
Evaluation of Gastrointestinal Transit Times in Red-tailed Hawks (Buteo jamaicensis) Using Contrast Fluoroscopy (Session #206) ............................................................................................................................................. 101
A Retrospective Look at Outcomes of Raptors with Ocular Trauma (Session #022) ............................................................ 103

Section 5: AAV Clinical

Endoscopically Obtained Biopsies of the Proventriculus and the Ventriculus in Pigeons (Columba livia) (Session #181) ........................................................................................................................................ 107
Species Specificity of Adherent Lactobacilli Isolated from Psittacine Birds (Session #067) ........................................... 109
Infundibular Cyst Formation After Incomplete Salpingohysterectomy in a Chicken (Gallus gallus domesticus) (Session #036) .................................................................................................................................... 115
Diagnosis and Treatment of Cushing’s Syndrome in a Senegal Parrot (Session #251) ..................................................... 119
Retricectomy for Resolution of Feather Trauma in an Umbrella Cockatoo (Cacatua alba) (Session #211) .................. 121
Hypernatremia in an Umbrella Cockatoo (Cacatua alba) (Session #157) ....................................................................... 123
Steroid-Induced Remission of Thoracic Round Cell Tumor in a Green-Cheek Conure (Pyrrhura molinae) (Session #226) ........................................................................................................................................ 125
Acrylic Stabilization for Psittacine Rhinothecal Fractures (The “Beak Helmet”) (Session #219) ................................. 127
A Novel Surgical Approach to Avian Femorotibiotarsal Luxation Repair (Session #215) ................................................. 133
Fatal Baylisascaris procyonis Infection in a Household Psittacine Flock (Session #114) .................................................... 135
Surgical Laser Treatment of Squamous Cell Carcinoma (Session #184) ................................................................. 137
Section 6: AAV Wildlife and Conservation

Cardiac Evaluation in the Bald Eagle (*Haliaeetus leucocephalus*) (Session #068) ................................................. 143

Viral Enteritis in Juvenile Black-capped Chickadees (*Poecile atricapillus*) in a Rehabilitation Setting (Session #180) .................................................................................................................. 145

Inflammatory Bowel Disease in a Harpy Eagle (*Harpia harpyja*) (Session #207) ............................................................. 149

Conservative Management of Proximal Humeral Fractures in Three Juvenile Raptors (Session #043) ......... 151

The Amazing Story of Ruapuke (formerly known as Lisa One), the Kakapo chick! (Session #326) .......... 155

Section 7: AAV Poultry

Epidemiology of a Pet Chicken Population (Session #369) ........................................................................................................... 159

Outbreak of Infectious Bronchitis Virus in a Flock of Backyard Chickens (Session #373) ..................... 163

Listeriosis Outbreak in a Backyard Chicken Flock (Session #223) ................................................................. 165

Surgical Resolution of a Complicated Septic Yolk Coelomitis and Oviductal Impaction in a Pet Chicken (*Gallus gallus domesticus*) (Session #270) ................................................................. 167

Web Sparing Amputation of the Third Digit of a Duck (Session #059) ................................................................. 169

Section 8: AAV Master Classes Track 1

Disease Conditions, Clinical Signs and Treatment Modalities of Large Pet Birds (Session #218) ......... 173

The Basics of Raptor Care (Session #299) .......................................................................................................................... 187

Birds With Big Bellies: What Do I Need to Know? (Session #286) ................................................................. 203

Laser Therapy in Avian Patients (Session #194) .................................................................................................................. 211

Section 9: AAV Master Classes Track 2

Physical Examination and Diagnostic Testing of Aquatic Animals (Session #263) ........................................... 217

Dealing with Parrot Intelligence and Cognitive Abilities in Daily Practice (Session #170A) .................................................. 227

Cognition in Grey Parrots: Reasoning by Inference in Studies on Exclusion (Session #170B) .............. 235

Juvenile Raptor Medicine (Session #072) .......................................................................................................................... 243

Section 10: AAV Master Classes Track 3

Sedation in Pet Birds (Session #285) ............................................................................................................................... 253

Avian Bornaviral Ganglioneuritis in Clinical Practice (Session #255) ................................................................. 259
Critical Thinking and Clinical Reasoning in Exotic Animal Medicine (Session #250) ................................. 273
Gastrointestinal Anatomy and Physiology of Birds of Prey (Session #129) ............................................................. 275
Are Your Numbers Real? How to Design an In-House Quality Control Plan for Your Veterinary Laboratory (Session #310) .......................................................................................................................... 285

Section 11: AAV Master Classes Track 4
Dealing with Parrot Intelligence and Cognitive Abilities in Daily Practice (Session #172) ........................................... 295
When You Thought it Could Not be Reproductive Disease (Session #337) ................................................................. 297
Backyard Poultry: Practical Information You Can Use, Presented by Systems (Session #166) ................................. 303
Disaster Planning for Pets (Session #204) .......................................................................................................................... 309

Section 24: Hybrid
Conservation of Highly Mutated Cancer Genes in Exotic Species (Session #307) .......................................................... 321
Standards of Care and Written Protocols in a Multi-Species Practice (Session #213) .................................................... 323
Training Animals to Accept Oral Medications and Injections without Restraint (Session #029) ...................... 329
Endoscopy 101: Why and How to Add Endoscopy to Your Exotic Practice (Session #048) .................................. 335
Integumentary Wound Healing and Management Techniques for Exotic Pets (Session #274) .............................. 349
GnRH Agonists in Avian and Exotic Patients: Opportunities and Challenges (Session #187) .............................. 355

Section 26: AAV Addendum
House Officer Manuscript Winner: Effects of Manual Restraint and Hooding on Physiologic Parameters in Red-Tailed Hawks (Session #405) .................................................................................................................... 363
Pre-conference Sessions

Section 1: A Bird in the Hand - Foundations in Avian Medicine

If You Build It, They Will Come: Guidelines for Developing an Avian Practice (Session #390) ......................... 3
History, Handling and Restraint, Grooming, and the Physical Examination (Session #391) ................................. 5
Covering Husbandry: How to Make it Through Everything and Stay on Time (Session #378) .......................... 13
The Utilization of Practical Clinical Pathology for Diagnostic Success (Session #394) ........................................ 21
Avian Anesthesia, Analgesia and Sedation (Session #377) ............................................................................. 27
Take Your Best Shot: Using Radiography to Enhance Your Avian Practice (Session #388) ............................ 31
Basic Diagnostic and Therapeutic Decision Making: A Guide to Apply Evidence-Based Veterinary Medicine in Your Practice (Session #382) ................................................................. 39

Section 2: Systems…Systematically

Understanding and Treating the Respiratory System (Session #387) ................................................................. 53
Avian Gastrointestinal Tract: Interaction of Anatomy and Physiology with Disease and Treatment
(Session #386) ................................................................................................................................................. 67
The Avian Reproductive Tract (Session #385) ........................................................................................................ 73
Avian Renal Anatomy, Physiology, and Diseases (Session #380) ....................................................................... 81
The Avian Central Nervous System for the Neurologic Exam (Session #381) .................................................... 89
Evaluating the Avian Integument: A Physical and Behavioral Approach (Session #379) ................................. 97