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October 12, 2007

Via Hand Delivery

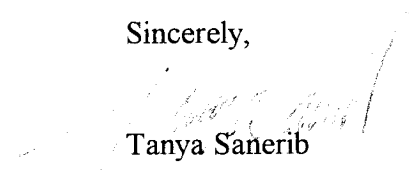
Lisa Zeiler Joiner
Fullbright & Jaworski
Market Square
801 Pennsylvania Avenue N.W.
Washington, D.C. 20004-2623


Re: ASPCA, et al. v. Ringling Brothers, et al., Civ. No. 03-2006 (EGS)

Dear Ms. Joiner:

Pursuant to Judge Facciola's September 25, 2007 Order, enclosed are: (1) a list of the names of plaintiffs' expert witnesses (Attachment A); (2) a detailed description of the procedures that plaintiffs' experts wish to perform during the inspections and the purpose for such procedures (Attachment B); and copies of plaintiffs' experts' Curriculum Vitae (Attachment C). One of plaintiffs' experts, Ajay A. Desai, is currently conducting field research and is unreachable, so we will provide you with a copy of his Curriculum Vitae upon his return, which should be the middle of next week.

Sincerely,


Tanya Sanerib


recycled paper

**DEFENDANT'S
EXHIBIT**

185

EXHIBIT A

October 12, 2007 Letter
ASPCA v. Ringling Brothers
Attachment A

Plaintiffs List of Expert Witnesses in ASPCA v. Ringling Brothers¹

Carol Buckley
Executive Director
The Elephant Sanctuary

Ros Clubb, PhD
Scientific Officer
Royal Society for the Prevention of Cruelty to Animals

Ajay Desai, Masters
Co-Chair
IUCN Asian Elephant Specialist Group

Philip K. Ensley, DVM
Diplomat, American College of Zoological Medicine
former Associate Veterinary
San Diego Wild Animal Park

Benjamin Hart, DVM, PhD
Diplomat, American College of Veterinary Behaviorists
Professor
University of California at Davis

Lynette Hart, PhD
Professor
University of California at Davis

Colleen Kinzley
General Curator
Oakland Zoo

Joyce Poole, PhD
Research Director
Amboseli Elephant Research Project, Amboseli Trust for Elephants

Gail Laule
Principal, Director of Animal Behavior
Active Environments, Inc.

¹ This list does not include any potential rebuttal expert witnesses whom plaintiffs may call.

EXHIBIT B

October 12, 2007 Letter
ASPCA v. Ringling Brothers
Attachment B

Procedures For Rule 34 Inspections

Plaintiffs do not contemplate performing any tests on the elephants. Below is a description of the procedures that plaintiffs' experts will perform during the inspections, the purpose for each procedure, and a list of the experts who will perform such procedures, depending on the date of each inspection.¹

A. Physical Inspections Of The Elephants

The physical inspections of the elephants will entail: (1) making visual observations of each elephant's body condition, including her weight and overall appearance; (2) determining whether any of the elephants have lacerations, wounds, or scars or whether there is evidence of any lacerations, wounds, or scars; (3) assessing the condition of the elephants' feet; and (4) making behavioral observations of the elephants including how they react to their handlers and to each other. The inspections will also include: (a) washing or wiping down any part of an elephant particularly where it appears that a scar or laceration may be covered by products such as "wonder dust;" (b) inspecting the elephants' feet; (c) inspecting behind the elephants' ears; (d) inspecting other parts of the elephants where the bullhook or other tools and instruments may be used; and (e) taking digital photographs to record the elephants' condition. The United States Department of Agriculture ("USDA") diagrams used by USDA inspectors in carrying out inspections under the Animal Welfare Act, 7 U.S.C. § 2131 *et seq.*, attached as Exhibit 1, will be used by plaintiffs' experts to record their observations, and the experts will also take notes on what they observe. As required by Judge Facciola's September 25, 2007 Order, plaintiffs' experts will rely on defendant's employees to provide assistance with these inspections. *See* Order ¶¶ 3, 8 (Docket No. 195).

The purpose of the physical inspections is to identify wounds and other evidence of harm, injury, or harassment as the result of (a) the bull hook and other tools and instruments used on the elephants, (b) the chains that are used to restrain the elephants, (c) the elephants' confinement, or (d) any other aspect of defendant's maintenance of the elephants. The inspections will also assist plaintiffs' experts in understanding and interpreting the elephants' medical and veterinary records.

¹ In the event that plaintiffs' October 4, 2007 request for modification of the September 25, 2007 Order is granted, (Docket No. 200), plaintiffs will immediately provide defendant with additional information concerning the further procedures that plaintiffs' experts will use during the inspections.

October 12, 2007 Letter
ASPCA v. Ringling Brothers
Attachment B

The physical inspections will be conducted by Dr. Phil Ensley accompanied by one or more of the following: Carol Buckley, Dr. Benjamin Hart, Dr. Lynette Hart, Colleen Kinzley, and/or Gail Laule.

B. Inspections Of The Tools And Instruments Used On The Elephants

Plaintiffs will inspect the “tools and instruments used by defendant in the care and training of the elephants.” Order ¶ 9 (Docket No. 195). These inspections will entail handling the actual tools and instruments, assessing their characteristics and condition, and determining whether the tools and instruments to which plaintiffs are given access appear to have been in actual use or whether they appear to have been provided solely for discovery purposes.

The purpose of inspecting the tools and instruments used by defendant is to aid plaintiffs’ experts in assessing the impacts these tools and instruments have on the elephants. For example, inspecting and handling defendant’s bullhooks will aid plaintiffs’ experts in determining the amount of force that is needed to cause an elephant to bleed. See e.g., Memorandum from Deborah Fahrenbruck to Mike Stewart, FEI 15025-27 (Ex. C to Pls. Opp’n. to Def.’s Mot. for Summ. J.) (Docket No. 96) (discussing an elephant, after being hooked with a bull hook, dripping “small pools” of blood from the arena “all the way inside the barn”).²

Bullhooks: Among the tools and instruments used by defendant’s employees who handle or work around the elephants are bullhooks, ankuses, or “guides” as defendant refers to them (hereafter collectively referred to as “bullhooks”). Plaintiffs will inspect all performance and non-performance bullhooks used by defendant’s employees. The bullhooks provided by defendant for these inspections should be all those actually utilized by the elephant handlers. At the Blue Unit, this includes, but is not limited to, the bullhooks used by the following Ringling Brothers employees (to the extent they are traveling with the Blue Unit at the time of the inspection): Robert Ridley, Mike Hayward, Heshan, Jeff Leis, Papa, Phillip, Loco, David Polk, Isham, Adam Jones, Ahmen, and Mike Bramboro. At the Red Unit, this includes, but is not limited to, the bullhooks used by the following Ringling Brothers employees (to the extent they are traveling with the Red Unit at the time of the inspection): Jimmy Strickland, Peshta, Alex Vargas, Joseph Frisco Jr., Ryan Henny, Jenny Frisco, Mark, Pervsky, Yuri, Shoshak, Rai, Howard, Jose, Karen,

² In the event that plaintiffs’ motion for reconsideration of the Court’s summary judgment ruling, (Docket No. 185), is granted in whole or in part, then plaintiffs will also request, during the inspection of the CEC, that defendant make available for inspection the ropes, chains, and other tools and instruments defendant uses to separate its baby elephants from their mothers, as well as all tools and instruments that are used to train baby to juvenile elephants for use in the circus.

October 12, 2007 Letter
ASPCA v. Ringling Brothers
Attachment B

and George Burns. At the Center for Elephant Conservation (“CEC”), this includes, but is not limited to, the bullhooks used by the following Ringling Brothers employees (to the extent they are working at the CEC at the time of the inspection): Gary Jacobson, Kathy Jacobson, Pat Harned, Janice Aria, and Dave Whaley. At Williston, this includes, but is not limited to, the bullhooks used by the following Ringling Brothers employees (to the extent they are working at Williston at the time of the inspection): Troy Metzler and Geoffrey Pettigrew.

Electric Prods: At least some of defendant’s employees who work with the elephants also utilize electric prods or “hot shots.” See e.g., Electronic Mail Message from Deborah Fahrenbruck to Mike Stewart, FEI 15024 (Ex. OO to Pls. Opp’n to Def.’s Mot. for Summ. J.) (“Troy [Metzler] carried an electric prod in his back pocket throughout most of the California tour during walk-ins”). Accordingly, plaintiffs will inspect all electric prods, hot shots, and similar electric tools that have been or are currently used in connection with the handling of elephants, including, but not limited to, the electric prod(s) used by Mr. Metzler.

Whips: Whips are also used by defendant’s employees in connection with their handling of the elephants. See e.g., VHS Feld Entertainment, RBBBC, Red 135th, WQ Rehearsals Animals, Rings, Tape 2 of 6; 12/21/2004 RB135-022-02. Accordingly, plaintiffs will inspect all whips that have been or are currently used by defendant’s employees who work with the elephants, including, but not limited to, the whip(s) used by Mr. Frisco.

Chains: Plaintiffs also will inspect the chains that are used to restrain or “tether” the elephants. The chains provided for inspection should be those that are routinely used by defendant to restrain the elephants.

Picket Line: The elephants on the road are frequently chained on a “picket line” – i.e., the elephants are lined up with their front and diagonal rear legs chained to parallel chains or cables that are secured by pickets. Accordingly, plaintiffs will inspect the picket lines that are used on both the Red and Blue Units.

Inspection of the tools and instruments used by defendant will be conducted by one or more of the following experts: Carol Buckley, Dr. Ros Clubb, Dr. Phil Ensley, Dr. Benjamin Hart, Dr. Lynette Hart, Colleen Kinzley, Gail Laule, and/or Dr. Joyce Poole.



ANIMAL AND PLANT HEALTH INSPECTION SERVICE
ANIMAL CARE

ASIAN ELEPHANT FOOT EVALUATION

License No.: _____ Date _____ Prepared by _____

Elephant I.D. (name, ear no, etc.) ;			
Front right:		Front left:	
anterior	posterior	anterior	posterior
sole		sole	
Rear right:		Rear left:	
anterior	posterior	anterior	posterior
sole		sole	



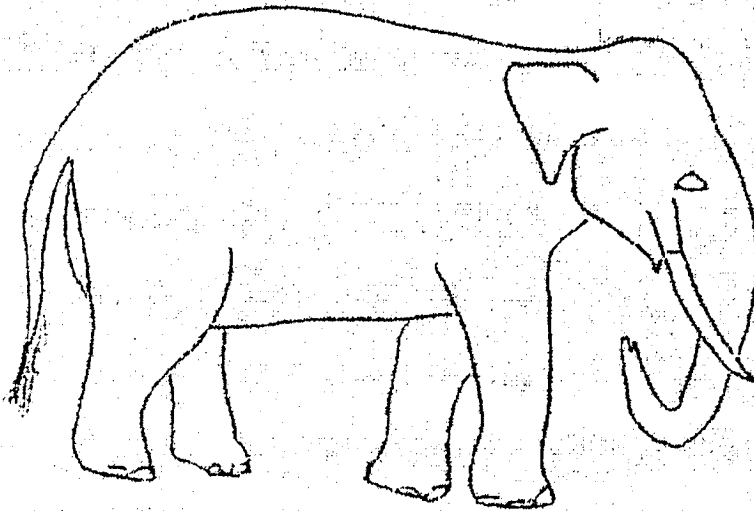
ANIMAL AND PLANT HEALTH INSPECTION SERVICE
ANIMAL CARE

ASIAN ELEPHANT SKIN EVALUATION

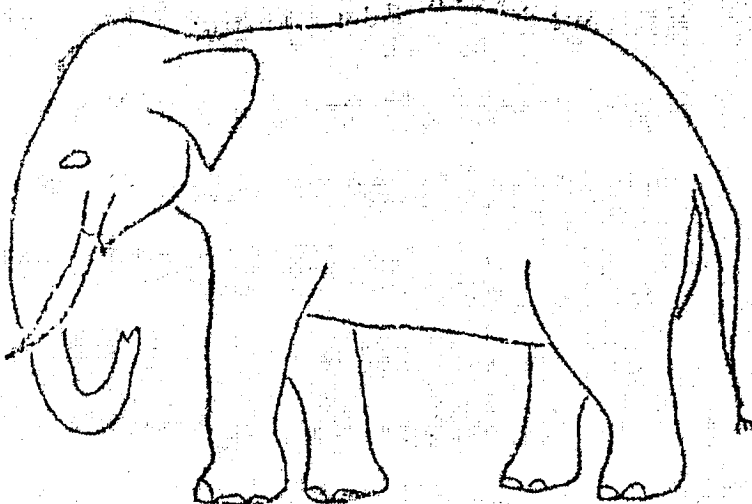
License No. _____ Date _____ Prepared by _____

Elephant I.D. (Number, tattoo, etc): _____

Right



Left





ANIMAL AND PLANT HEALTH INSPECTION SERVICE
ANIMAL CARE

ASIAN ELEPHANT EAR EVALUATION

License No. _____ Date _____ Prepared by: _____

Elephant I.D. (number, tattoo, etc.) : _____

right

left

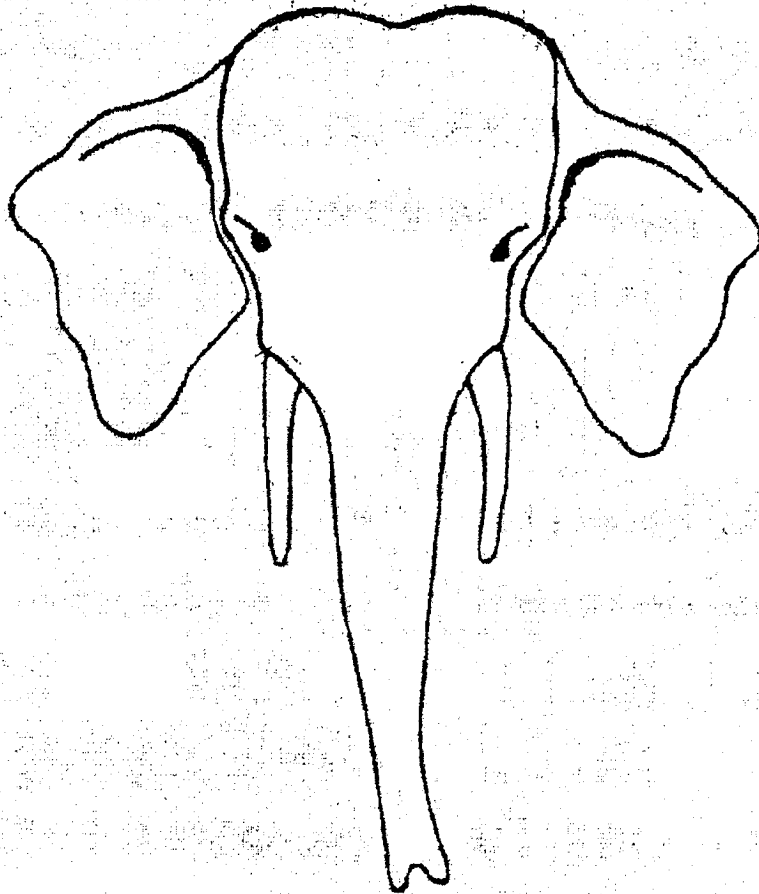


EXHIBIT C

CURRICULUM VITAE

Carol Buckley
Co-Founder, Executive Director
The Elephant Sanctuary

183 Buck Hollow Road
Hohenwald, Tennessee 38462
(931) 796.6500

Professional Positions

The Elephant Sanctuary, 1995-present
Co-Founder, Executive Director
Hohenwald, Tennessee

Development of elephant management programs and provision of elephant medical care. Provides care for 19 elephants at the Sanctuary. Runs the business office and organizes elephant acquisitions. Develops and implements educational programs for the public. Works with governmental agencies and private organizations to strengthen regulations pertaining to the welfare of captive elephants.

First elephant ever confiscated by the United States Department of Agriculture was placed by the agency at The Elephant Sanctuary in 2003.

Provides assistance for Asian elephants in Asia

Tarra Productions, 1975-1995
Manager
Ojai, California

Exhibition, training, and care for female Asian elephant named Tarra
Promotion and performances for television, motion pictures and circus and zoo shows

Traveled in the US, Canada, and abroad performing in a number of circuses including Circus Gatini in Quebec, Canada and the Big Apple Circus in New York City.

African Lion Safari, 1991-1992
Visiting elephant manager from the Racine Zoo, WI
Ontario, Canada

Oversaw the breeding of elephants in my care.

Zoo Manager, 1988-1992
Elephant supervisor at the Bowmanville Zoo in Ontario, Canada and Racine Zoo in Racine, WI

Consultancy Positions

Zoo Consultant, 1992-2002

Chehaw Wild Animal Park, Albany, Georgia.

Assisted in the development of a comprehensive elephant management program. Consulted with the keeper staff regarding elephant and keeper training. Helped to develop and implement safety procedures, and care and management protocols. Consulted with management regarding facility improvement.

Independent Contractor, 1980-1994

Creation and implementation of elephant programs at: Marriott's Great America Theme Park; Knott's Berry Farm Theme Park; Santa Barbara Zoo; Kansas City Zoo; Nashville Zoo; and Granby Zoo.

Licenses

United States Department of Agriculture License

Tennessee Wildlife Resources Agency License

Awards & Honors

Independent Charities, Best in America Award, June 13, 2005

Of the more than 50,000 charities the Sanctuary is one of only 1500 which have been certified as meeting or exceeding the rigorous standards set forth by ICA.

Whole Foods & E-Town, E-chievement Award, December 9, 2001

Award celebrating those people who make a positive difference in their communities and beyond

Genesis Award, March 2001.

Carol Buckley was selected as Guest of Honor for the 15th annual Genesis Awards in light of her work to bring media attention to her cause.

TIME Magazine, Hero for the Planet Award, 1997

Awarded for innovative work in co-founding the first natural-habitat refuge for elephants in the United States

Education

Exotic Animal Training & Management Program, 1974

Moorpark College, California

Selected List Of Lectures

18th Annual Elephant Managers Association Workshop, Fort Worth Zoo, 1997
The Elephant Sanctuary - A Natural Habitat Refuge for Asian Elephants

USDA Lecture 2001
The Elephant Sanctuary- History of Success

Elephant Managers Conference 2001
The Elephant Sanctuary-Passive Control Management

AZA Annual Conference 2001
Zoos, Sanctuaries And Animal Welfare
Sanctuary: A Fundamental Requirement of Wildlife Management

Oakland Zoo Celebrating Elephants 2002
Featured Speaker

An Evening to Remember Because Elephants Never Forget 2003
Maine Friends of Animals & the Maine Animal Coalition
The Elephant Sanctuary-A Window into the World of the Majestic Elephant

20th Annual International Compassionate Living Festival, Raleigh, NC 2005
The Power of One
The Elephant Sanctuary-A Compassionate Alternative

Tennessee Wildlife Resources Agency 2006
The Elephant Sanctuary-Captive Elephants in Tennessee

A Symposium on Captive Elephants: Science & Well-Being April 17-19, 2006
Tufts University, North Grafton
Massachusetts

Publications

Buckley, Carol. Just for Elephants, Tilbury House Publishers, 2006.

Lyashchenko, K., et al. Tuberculosis in Elephants: Antibody Responses to Defined Antigens of Mycobacterium tuberculosis, Potential for Early Diagnosis, and Monitoring of Treatment. Clin. Vaccine Immunol. 13(7): 722-32 (Jul. 2006).

Buckley, Carol. Travels With Tarra, Tilbury House Publishers, 2002.

Buckley, Carol. Captive elephant foot care: Natural-habitat husbandry techniques. In: The Elephant's Foot: Prevention and Care of Foot Conditions in Captive Asian and African Elephants. Csuti, Blair; Sargent, Eva L.

Bechert, Ursula S. (eds.). Iowa State University Press, Ames. 2001, i-viii.
1-163 p. Chapter pagination: 53-55.

Buckley, C., D. Collins, C. Doyle, G. Johnson, J. Lehnhardt, & D. Redfox.
1992. EMA Statement on Free/Protected Contact. Elephant Managers'
Association Journal (EMA), III Indianapolis, IN. pp. 9-12.

Memberships

The Association of Sanctuaries (TAOS) present.

Board Member, Elephant Managers Association 1992.

Officer, Elephant Managers Association 1991.

Steering Committee, Elephant Managers Association 1990.

Dr Ros Clubb

RSPCA, Wilberforce Way, Southwater, Horsham, West Sussex RH13 9RS.
Phone (office direct): 0300 123 0206. E-mail: rclubb@rspca.org.uk

Employment history

Scientific Officer, Wildlife Department

RSPCA, Southwater

October 2006 - present Responsibilities at this animal welfare charity include the collation and dissemination of information on wildlife welfare issues for use by the Society and the public; research and preparation of reports on specific wildlife topics (e.g. wildlife trade, the role of zoos, circus animal welfare, non-domestic pets, fur trade); provision of scientific information and advice on wildlife matters internally and externally; preparation of MP briefings, representation of the Society at meetings, working groups and to the media.

Programme Officer

Care for the Wild International, Kingsfold

May 2004 – Sept 2006 Responsibilities at this conservation charity included the day to day running of international projects relating to the protection of species and their habitats, including liaison with project partners in country, organisation of payments, collation of results, etc; research on conservation and welfare topics; representing the organisation at meetings; contribution towards writing of reports; overseeing production timetable for supporter newsletters; producing text for website and other literature for the public; answering supporter enquiries.

Postdoctoral Research positions

Dept. Zoology, Oxford University

Nov 2003 - May 2004 Development of non-invasive measures of stress in the laboratory rat, and assessment of the effects of early experience on their welfare. Animal Behaviour Research Group (ABRG).

Aug - Oct 2003 Commission from RSPCA to write publications based on previous work on zoo elephants.

Aug 2002 - May 2003 Effects of handling and management on farmed and wild South American Camelids (SACs). Wildlife Conservation Research Unit (WildCRU). Part of a large international EU-funded project aimed at developing a humane sustainable management plan for harvesting the fleece of SACs. Fieldwork based in Chile and carried out in collaboration with the Catholic University in Santiago.

Mar 2001 - Mar 2002 Review of the welfare of zoo elephants in Europe. Animal Behaviour Research Group. Commissioned and funded by the RSPCA. Report received extensive media coverage in Europe and US, reprinted in US and Taiwan.

Education

Oct 1997 – Mar 2001

D.Phil.

Dept. Zoology, Oxford University

Factors affecting the development of abnormal, stereotyped behaviour in zoo-housed carnivores. Funded by a Pirie-Reid Scholarship and eight UK zoos. Key results published in the journal *Nature*, received extensive media coverage in Europe and US.

Sept 1992 – July 1996

B.Sc. (Hons) Zoology (Anim. Ecol.)

Dept. Zoology, Aberdeen University

First class degree.

Dr Ros Clubb

Publications

- Clubb, R. & Mason, G. J. (2007). Natural behavioural biology as a risk factor in carnivore welfare: How analysing species differences could help zoos improve enclosures. Applied Animal Behaviour Science 102 (3-4): 303-328
- Mason, G., Clubb, R., Latham, N. & Vickery, S. (2007) Why and how should we use environmental enrichment to tackle stereotypic behaviour? Applied Animal Behaviour Science 102 (3-4): 163-188
- Clubb, R. & Vickery, S. (2006) Locomotory stereotypies in carnivores: does pacing stem from hunting, ranging or frustrated escape? 58-85. In Mason, G. & Rushen, J. (eds) Stereotypic Animal Behaviour: fundamentals and applications to welfare (2nd ed.) CABI, Wallingford, UK.
- Clubb, R. & Sharpe, S. (2006). Pacing stereotypies in carnivores: insights from observational, environmental manipulation and cross-species studies. In: Stereotypic Animal Behaviour, Second edition, CAB International.
- Clubb, R. (2005) To die for. (Editorial on the fur industry). New Scientist 186(2504): 22-22
- Clubb, R. & Macdonald, D. (2004). The effect of capture, handling and husbandry procedures on the welfare of South American camelids in Chile. Final Report, MACS Project.
- Clubb, R. & Mason, G. (2004). Pacing polar bears and stoical sheep: testing ecological and evolutionary hypotheses about animal welfare. Animal Welfare 13: S33-S40.
- Clubb, R. & Mason, G. (2003) The welfare of zoo elephants in Europe: mortality, morbidity and reproduction. In: Proceedings of the Fifth Annual Zoo Research Symposium, Marwell Zoological Park, Federation of Zoological Gardens of Great Britain and Ireland, London, 67-76.
- Clubb, R. (2003). Why do carnivores pace? Summary of Ph.D. thesis results disseminated to zookeepers.
- Clubb, R. & Mason, G. (2003). Captivity effects on wide ranging carnivores. Nature 425: 473-474
- Clubb, R. & Mason, G. (2002). A Review of the Welfare of Elephants in European Zoos. RSPCA, Horsham. Reprinted in Taiwan.
- Clubb, R. & Mason, G. (2002). Are some Carnivore species predisposed to develop stereotypy because of their foraging strategy in the wild? In: Proceedings of the 4th International Conference on Environmental Enrichment, eds. Hare, V. J., Worley, K. E. & Myers, K. The Shape of Enrichment, San Diego, pp. 139 – 141. Abstract also in Advances in Ethology 34, Supplement to Ethology, p. 214.
- Clubb, R. & Mason, G. (2001). Does behavioural ecology influence the development of stereotypic behaviour in captivity? In: The Marwell Scientific Report 1999/2000, eds. Ostler, J. & Worman, G.. Pebble Graphics, Romsey, pp. 9 – 11.

Curriculum Vitae

Philip K. Ensley, DVM
Dipl., ACZM

October, 2007

FORMER CAREER POSITION: Associate Veterinarian 1976-2005
(Retired as of August, 2005) Zoological Society of San Diego
San Diego, CA

Independent Contractor three to four days per month:
San Diego Humane Society & SPCA, Spring 2006

ACTIVE LICENSES: California & Utah
INACTIVE LICENCES: Colorado, New Jersey, New York, Ohio

EDUCATION & TRAINING:

1975-1976 Internship, Zoo Animal Medicine and Surgery
SMITHSONIAN INSTITUTION
NATIONAL ZOOLOGICAL PARK
Washington, DC

1972-1973 Internship, Small Animal Medicine and Surgery
HENRY BERGH MEMORIAL HOSPITAL OF THE ASPCA
New York, New York

1970-1972 Group Veterinarian
UNITED STATES ARMY - VETERINARY CORPS
5th Special Forces (Airborne)

1970 Doctor of Veterinary Medicine
TUSKEGEE UNIVERSITY
Tuskegee, Alabama

1966 Bachelor of Science in Zoology
IOWA STATE UNIVERSITY
Ames, Iowa

PROFESSIONAL WORK EXPERIENCE:

- 1976-2005 Associate Veterinarian
ZOOLOGICAL SOCIETY OF SAN DIEGO
San Diego, California
- 1973-1975 Associate Veterinarian
CENTRAL VALLEY VETERINARY HOSPITAL
Salt Lake City, Utah
- 1972-1973 Associate Veterinarian
JOHN E. WHITEHEAD, DVM
Dumont, New Jersey
- 1970-1972 Group Veterinarian
UNITED STATES ARMY - VETERINARY CORPS
5th Special Forces (Airborne)

HONORS & DISTINCTIONS:

Diplomat, American College of Zoological Medicine
Merck Veterinary Manual Award
Army Commendation Medal
Phi Zeta, National Veterinary Medical Honor Society
Beta Kappa Chi, National Scientific Honor Society
Smithsonian Fellow, Smithsonian Institution

RESEARCH GRANTS:

- 1982 American Association of Zoo Veterinarians, and the Charles Ulrick and Josephine Bay
Foundation (\$1,500)
Project: Supplemental funding for Reproductive Study of the
Brown Hyena.
- 1981 American Association of Zoo Veterinarians, and the Charles Ulrick and
Josephine Bay Foundation (\$5,000)
Investigators: Ensley, P.K., Lasley, W., and Rich, M.
Project: Reproductive Study of the Brown Hyena.
- 1979 American Association of Zoo Veterinarians (\$1,500)
Investigators: Ensley, P.K. and Janssen, D.L.
Project: Biological Activity of Two Oral Antibiotics, Demeclocycline
Hydrochloride and Ampicillin, in Amazon Parrots.

HUMANITIES AND CONSERVATION GRANTS:

2004 Mississippi Humanities Council Grant MSOH04-10-76 (\$5,000)
Project Director: Ensley, P.K.
Project: Mississippi Audubon Oral History Project

2003 Mississippi Humanities Council Grant RG03-02-058 (\$3,770)
Project Director: Ensley, P.K.
Project: Mississippi Audubon Archaeology Project

2003 Mississippi Humanities Council Grant MSOH03-10-064 (\$9,720)
Project Director: Ensley, P.K.
Project: Mississippi Audubon Oral History Project

2002 Mississippi Humanities Council Planning Grant RG02-02-09 (\$3,000)
Project Director: Ensley, P.K.
Project: Mississippi Audubon Project

PROFESSIONAL AFFILIATIONS:

American Association of Zoo Veterinarians
American Veterinary Medical Association
Association of Avian Veterinarians
San Diego County Veterinary Medical Association

TRAVEL:

Eastern and Western Europe, North and East Africa, South America,
Papua, New Guinea, Australia

PHOTOGRAPHY CREDITS:

Audubon, Audubon Mississippi, Living Bird Quarterly, Smithsonian,
Outdoor California, ZooNooz, Living Blues, BioSpheres, Southern
Register

SCIENTIFIC PUBLICATIONS

Ensley, P.K.: Mississippi Audubon Project: Humanities and In Situ Conservation. Proceedings
26th Annual Conference
Association Of Avian Veterinarians. 2005.

Ensley, P.K.: Mississippi Audubon Project: Combining The Humanities And In Situ Conservation.
Proceedings, Tuskegee
University 40th Annual Veterinary Medical Symposium. 2005.

Ensley, P.K., Rideout, B.A. and Sterner, D.J.: Radiographic Imaging to Evaluate Chick Position in
California Condor (Gymnogyps californianus) Eggs. Ann. Proc. Am. Assoc. Zoo Vet., 1994.

Ensley, P.K., Anderson, M., Osborn, K., Bissonnette, S. and Deftos, L.J.: Osteodystrophy in an
Orphan Asian Elephant (Elaphas maximus indicus). Ann. Proc. Am. Assoc. Zoo Vet., 1994.

Ensley, P.K. and Osborn, K.: Hemosiderosis in a Wild Caught Bird of Paradise and Other Species
in Papua New Guinea. Ann. Proc. Am. Assoc. Zoo Vet., 1993.

Ensley, P.K.: Veterinary Aspects of the California Condor (Gymnogyps californianus) Recovery
Program. Proc. SAVMA Symposium, U.C., Davis, 1988.

SCIENTIFIC PUBLICATIONS (cont'd.)

- Smith, A.W., Anderson, M.P., Skilling, B.S., Barlough, J.E. and Ensley, P.K.: First Isolation of Calicivirus from Reptiles and Amphibians. *Am. J. of Vet. Res.* 47(8):1718-1721, 1986.
- Calle, P.C. and Ensley, P.K.: What is Your Diagnosis-Intraluminal Filling Defects in the Proventriculus and Ventriculus. *J. Am. Vet. Assoc.* 189(9): 1230-1231, 1986.
- Heuschele, W.P., Oosterhuis, J., Janssen, D., Robinson, P.T., Ensley, P.K., Meier, J.E., Olson, T., Anderson, M.P. and Benirschke, K.: Cryptosporidial Infections in Captive Wild Animals. *J. of Wild. Dis.*, 22(4): 493-496, 1986.
- Smith, A.W., Anderson, M.P., Skilling, D.E., Barlough, J.E. and Ensley, P.K.: First Isolation of Calicivirus From Reptiles and Amphibians. *Am. J. Vet. Res.* 47(8): 1718-1721, 1986.
- Calle, P.C. and Ensley, P.K.: Abruptio Placentae in a Lion-Tailed Macaque. *J. Am. Vet. Med. Assoc.* 187(11): 1275-1276, 1985.
- Ensley, P.K., Launer, D.P. and Blasingame, J.P.: General Anesthesia and Surgical Removal of a Tumor-Like Growth From the Foot of a Double-wattled Cassowary. *J. of Zoo An. Med.* 15: 35-37, 1984.
- Orosz, S., Ensley, P.K. and Janssen, D.: Surgical Anatomy of the Pectoral and Pelvic Limbs of a Condor-Related Species. *Ann. Proc. Am. Assoc. Zoo. Vet.* 157-158, 1984.
- Smith, A.W., Skilling, D.E., Ensley, P.K., Benirschke, K. and Lester, T.L.: Calicivirus Isolation and Persistence in a Pygmy Chimpanzee Pan paniscus. *Science* 221: 79-81, 1983.
- Ensley, P.K., Wing, A.E., Gosink, B.B., Lasley, B.L. and Durrant, B.: Application of Noninvasive Techniques to Monitor Reproductive Function in a Brown Hyena Hyena brunnea. *Zoo Biology* 1: 333-343, 1982.
- Ensley, P.K., Rost, T.L., Anderson, M., Benirschke, K., Brockman, D. and Ullrey, D.: Intestinal Obstruction and Perforation Caused by Undigested Acacia sp. Leaves in Langur Monkeys. *J. Am. Vet. Med. Assoc.* 181(11): 1351-1354, 1982.
- Harper, Peter A.W. and Ensley, P.K.: Mummified Fetus Associated With Uterine Rupture in a New Zealand White Rabbit Oryctolagus cuniculus. *Lab. An. Sci.* 32(5): 518-519, 1982.
- Stoskopf, M.J., Beall, F.B., Ensley, P.K. and Neeley, E.: Immobilization of Large Ratites; Blue-necked Ostrich Struthio austrealis austrealis and Double-wattled Cassowary Casuaris casuaris with Hematologic and Serum Chemistry Data. *J. of Zoo An. Med.* 13: 160-268, 1982.
- Ensley, P.K.: Omphalitis in Infant Orangutans. XXIV International Symposium on Diseases of Zoo and Wild Animals. *Vesprem (Hungary)* 69-71, 1982.
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- Ensley, P.K., Reichard, T.A. and Liston, S.: What is your Diagnosis-Septic Arthritis and Osteomyelitis in an Iguana. J. Am. Vet. Med. Assoc. 179(11): 1312-1314, 1981.
- Janssen, D.L., Robinson, P.T. and Ensley, P.K.: Lead Poisoning in Birds. J. Am. Vet. Med. Assoc. 178(2): 150, 1981.
- Ensley, P.K. and Janssen, D.L.: A Preliminary Study Comparing the Pharmacokinetics of Ampicillin Given Orally and Intramuscularly to Psittacines: Amazon Parrots Amazona spp. and Blue-naped Parrots Tanygnathus lucionensis. J. Zoo An. Med. 12: 42-47, 1981.
- Ensley, P.K., Janssen, D.L. and Anderson, M.P.: Squamous Cell Carcinoma in an Indo China Sika Deer. J. Am. Vet. Med. Assoc. 177(9): 932, 1980.
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Ensley, P.K., Saunders, B.S. and Fletcher, K.C.: Use of an Indwelling Nasoabomasal Tube for Feeding of Weak Neonatal Exotic Ruminants. J. Am. Vet. Med. Assoc. 171(9): 984-987, 1977.

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POPULAR ARTICLES:

Ensley, P.K.: Community Connection, Archaeology, Artifacts and the Mississippi Audubon Project. Elimu 6
(1): 14-15, Winter/Spring 2003.

Ensley, P.K. and Grantham, J.: Community Connection, From Slavery to Restoration. Elimu 5
(1): 12-13, Winter/Spring 2001.

POPULAR ARTICLES (cont'd.):

- Ensley, P.K.: Hoofstock Nursery Protocol Seminar No. 4: Emergency Care & Assessment. J. Am. Assoc. of Zoo Keepers 22 (10): 415-418, 1995.
- Ensley, P.K.: Giant Anteaters' Turn Around. The Keeper, 3(7):7, 1986.
- Ensley, P.K.: Veterinary Rounds--Sequoia Tree Condor. ZooNooz 58(7): 14-16, 1985.
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TEXTBOOK CHAPTERS:

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- Ensley, P.K.: Parasitic Diseases of Cage Birds. Kirk Veterinary Therapy (8th ed.), Kirk, R. (Ed.), W.B. Saunders Co., Philadelphia, PA. 1983.
- Ensley, P.K.: Caged Bird Medicine and Husbandry. The Veterinary Clinics of North America, Non-Domestic Pet Medicine. Boever, W.J. (Ed.), W.B. Saunders Co., Philadelphia, PA. 499-525, 1979.
- Ensley, P.K.: Necropsy Procedure for Birds - Appendix 14, Zoo and Wild Animal Medicine, Fowler, M.E. (Ed.), W.B. Saunders Co., Philadelphia, PA. 1979.

TEXTBOOK:

- Orosz, Susan E., Ensley, P.K. and Haynes, C.J.: Avian Surgical Anatomy, Thoracic and Pelvic Limbs, W.B. Saunders Co., Philadelphia, PA. 1992.

POSTER SESSIONS:

JOINT CONFERENCE AMERICAN ASSOCIATION OF ZOO
VETERINARIANS,
AMERICAN ASSOCIATION OF WILDLIFE VETERINARIANS, AND THE
WILDLIFE DISEASE ASSOCIATION, 2004
"Mississippi Audubon Project, Humanities and In-Situ Conservation";
Ensley, P.K.

ASSOCIATION OF AVIAN VETERINARIANS
Annual Meeting, 1995. Philadelphia, Pennsylvania.
"Best Part of the Job"; Ensley, P.K.

AMERICAN ASSOCIATION OF ZOO VETERINARIANS
Annual Meeting, 1983. Tampa, Florida
"Internship in Zoological Medicine at the Jennings Center for Zoological
Medicine";
Ensley, P.K.

AMERICAN ASSOCIATION OF ZOO VETERINARIANS
Annual Meeting, 1976. St. Louis, Missouri
"Exotic Animal Medicine and Surgery at the National Zoological Park";
Kennedy, S., Montali,
R.J., Ensley, P.K. and Bush, M.

AMERICAN ASSOCIATION OF ZOO VETERINARIANS
Annual Meeting, 1975. San Diego, California.
"Exotic Animal Medicine and Surgery at the National Zoological Park";
Ensley, P.K.,
Montali, R.J. and Bush, M.

Benjamin L. Hart

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CURRICULUM VITA

Birthdate: August 12, 1935

Birthplace: Kansas City, Missouri

College Education:	University of Minnesota	B.S.	1958
	University of Minnesota	D.V.M.	1960
	University of Minnesota	Ph.D.	1964

Previous Positions: Distinguished Professor, Physiology and Behavior
Department of Anatomy, Physiology and Cell Biology
Chief, Behavior Service, Veterinary Medical Teaching Hospital
Director, Companion Animal Behavior Program
School of Veterinary Medicine
University of California, Davis

Previous Teaching: Animal behavior; canine and feline behavior

Recent Research: Cognition and brain function in elephants; evolution of herbal medicine

Previous Editorial Responsibilities: *Hormones and Behavior*, Editorial Board
Applied Animal Behavior Science, Editorial Advisory Board
Animal Welfare, Editorial Advisory Board

Professional Societies: American College of Veterinary Behaviorists
American Veterinary Medical Association
Animal Behavior Society (elected Fellow)
American Association for the Advancement of Science
American Veterinary Society for Animal Behavior

Professional Certifications: Diplomate, American College of Veterinary Behaviorists
Certified Applied Animal Behaviorist, Animal Behavior Society

Publications: See accompanying list of publications

**SELECTED LIST OF PUBLICATIONS
FROM A TOTAL OF 182
(Benjamin L. Hart)**

- Hart, B.L. and L.A. Hart. 1994. Fly switching by Asian elephants: tool use to control parasites. *Animal Behaviour* 48:35-45.
- Hart, B.L. 1994. Behavioral defense against parasites: interaction with parasite invasiveness. *Parasitology* 109:5139-5151.
- Mooring, M.S. and Hart, B.L. 1995. Differential grooming rate and tick load of territorial male and female impala, *Aepyceres melampus*. *Behavioral Ecology* 6:94-101.
- Hart, B.L. 1995. Analyzing breed and gender differences in behaviour. p. 65-78. In: J.A. Serpell (ed.), The Domestic Dog: Its Evolution Behaviour and Interactions with People. Cambridge University Press, U.K.
- Mooring, M.S., A.A. McKenzie and B.L. Hart. 1996. Grooming in impala: Role of oral grooming in removal of ticks and effects of ticks in increasing grooming rate. *Physiology and Behavior*, 59:965-971.
- Mooring, M.S., A. A. McKenzie and B. L. Hart. 1996. Role of sex and breeding status in grooming and total tick load of impala. *Behavioral Ecology and Sociobiology*, 39: 259-266.
- Hart, B.L. 1997. Behavioural defences, pp. 59-77. In Clayton, D.H. and Moore, J. (eds.) Host - Parasite Evolution. General Principles and Avian Models. Oxford University Press, Oxford.
- Hart, B.L. and R.A. Eckstein. 1997. The role of gonadal hormones in the occurrence of objectionable behaviours in dogs and cats. *Applied Animal Behaviour Science* 52:331-344.
- Neilson, J.C., R.A. Eckstein and B.L. Hart. 1997. Effects of castration on behavior of male dogs with reference to the role of age and experience. *Journal of the American Veterinary Medical Association* 211:180-182.
- Mooring, M.S., A.J. Gavazzi and B.L. Hart. 1998. Effects of castration on grooming in goats. *Physiology and Behavior*, 64:707-713.
- White, M.M., J.C. Neilson, B.L. Hart and K.D. Cliff. 1999. Effects of clomipramine hydrochloride on dominance-related aggression in dogs. *Journal of the American Veterinary Medical Association* 215:1288-1291.
- Eckstein, R.A. and B.L. Hart. 2000. The organization and control of grooming in cats. *Applied Animal Behaviour Science* 68:131-140.

- Neilson, J.C., B.L. Hart, K.D. Cliff and W.W. Ruehl. 2001. Prevalence of behavioral changes associated with age-related cognitive impairment in dogs. *Journal of the American Veterinary Medical Association* 218:1787-1791.
- Hart, B.L. 2001. Effects of gonadectomy on subsequent development of age-related cognitive impairment in dogs. *Journal of the American Veterinary Medical Association* 219:51-56.
- Pryor, P.A., B.L. Hart, K.D. Cliff and M.J. Bain. 2001. Effects of a selective serotonin reuptake inhibitor on urine spraying behavior in cats. *Journal of the American Veterinary Medical Association* 219:1557-1561.
- Hart, B.L., L.A. Hart., M. McCoy, and C.R. Sarath. 2001. Cognitive behavior in Asian elephants: use and modification of branches for fly switching. *Animal Behaviour* 62:839-847.
- Hemmes, R.B., A. Alvarado and B.L. Hart. 2002. Use of California bay foliage by wood rats for possible fumigation of nest-borne ectoparasites. *Behavioral Ecology* 13:381-385.
- Kakuma, Y., Y. Takeuchi, Y. Mori and B.L. Hart. 2003. Hormonal control of grooming behavior in domestic goats. *Physiology and Behavior* 78:61-66.
- Hart, B.L. and P.A. Pryor. 2004. Developmental and hair-coat determinants of grooming behaviour in goats and sheep. *Animal Behaviour* 67:11-19.
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- Hart, B.L. 2005. The evolution of herbal medicine: behavioural perspectives. *Animal Behaviour* 70:973-989.
- Segurson, S.A., J.A. Serpell and B.L. Hart. 2005. Evaluation of a behavioral assessment questionnaire for use in the characterization of behavioral problems of dogs relinquished to animal shelters. *Journal of the American Veterinary Medicine Association* 227:1755-1761.
- Hart, B.L., L.A. Hart and M.J. Bain. 2006. Canine and Feline Behavior Therapy, 2nd Edition, Blackwell, Ames, Iowa.
- Hart, B.L. and L.A. Hart. 2007. Evolution of the elephant brain: a paradox between brain size and cognitive behavior. . In: Kaas, J.H., Krubitzer, L.A. (Eds.), *The Evolution of Nervous Systems, A Comprehensive Review*, vol. 3, Mammals, Vol. 3. Elsevier, Amsterdam, pp. 491-497.
- Hart, B.L., L.A. Hart. and N. Pinter-Wollman. 2007. Large brains and cognition: Where do elephants fit in? *Neuroscience and biobehavioral reviews*. In press (on-line pre-publication PDF available).

BIOGRAPHICAL SKETCH – LYNETTE A. HART

School of Veterinary Medicine, University of California, Davis, CA 95616 530 752-2181
lahart@ucdavis.edu

Professional Preparation:

Brigham Young University BS	1958	Physical Science, Secondary Education
University of California, Berkeley, MA	1964	Educational Psychology
Rutgers University, PhD	1976	Zoology, Animal Behavior

Appointments (partial list):

2001-present Professor, Dept. of Population Health and Reproduction, School of Veterinary Medicine, University of California, Davis; 1995-2001, Associate Professor; 1991-1995, Assistant Professor

1991-2006 Director, UC Center for Animal Alternatives;
http://www.vetmed.ucdavis.edu/Animal_Alternatives/main.htm

1985-1999 Director, Center for Animals in Society

Sample Publications out of 85 Refereed Articles and 42 Books or Book Chapters:

Hart, L.A., B.L. Hart, & B. Mader. 1990. Humane euthanasia and companion animal death: Caring for the animal, the client, and the veterinarian. *Journal of the American Veterinary Medical Association* 197, 1292-1299.

Hart, L.A. 1994. The Asian elephants-driver partnership: The drivers' perspective. *Applied Animal Behaviour Science* 40:297-312.

Hart, B.L. and L.A. Hart. 1994. Fly switching by Asian elephants: tool use to control parasites. *Animal Behaviour* 48:35-45.

Hart, B.L. 1995. Analyzing breed and gender differences in behaviour. p. 65-78. In: J.A. Serpell (ed.), *The Domestic Dog: Its Evolution Behaviour and Interactions with People*. Cambridge University Press, U.K.

Hart, L.A. 1997. Tourists' effects on drivers of working Asian elephants. *Anthrozoos* 10:47-49.

Hart, L.A. (Ed.) 1998. *Responsible Conduct with Animals in Research*. Oxford University Press, New York, 193 pp.

Hart, L.A. and Sundar. 2000. Family traditions for mahouts of Asian elephants. *Anthrozoos* 13:34-42.

O'Connell, C.E., B.T. Arnason, and L.A. Hart. 2001. Seismic properties of Asian elephant (*Elephas maximus*) vocalizations and locomotion. *Journal of the Acoustical Society of America* 108:3066-3072.

O'Connell-Rodwell, C.E., L.A. Hart, and B.T. Arnason. 2001. Exploring the potential use of seismic waves as a communication channel by elephants and other large mammals. *American Zoologist* 41:1157-1170.

Hart, B.L., L.A. Hart., M. McCoy, and C.R. Sarath. 2001. Cognitive behavior in Asian elephants: use and modification of branches for fly switching. *Animal Behaviour* 62:839-847.

Hart, B.L., L.A. Hart and M.J. Bain. 2006. Canine and Feline Behavior Therapy, 2nd Edition, Blackwell, Ames, Iowa.

Hart, B.L. and L.A. Hart. 2007. Evolution of the elephant brain: a paradox between brain size and cognitive behavior . . In: Kaas, J.H., Krubitzer, L.A. (Eds.), The Evolution of Nervous Systems, A Comprehensive Review, vol. 3, Mammals, Vol. 3. Elsevier, Amsterdam, pp. 491–497.

Hart, B.L., L.A. Hart. and N. Pinter-Wollman. 2007. Large brains and cognition: Where Do elephants fit in? Neuroscience and biobehavioral reviews. In press (on-line pre-publication PDF available).

**Colleen Kinzley
Curriculum Vitae**

Colleen Kinzley has worked with elephants in the zoo environment for over 20 years. She has been the General Curator and Elephant Manager at the Oakland Zoo since 1990. During that time she implemented the first Protected Contact Training and Management program in the country for 1.3 African elephants. She hand-raised 1.0 African elephant calf for eleven months, milked 0.1 African elephant to supplement the diet of the hand raised calf and for the purpose of ongoing analysis of milk. Ms. Kinzley developed zoo-wide enrichment programs and developed zoo-wide operant conditioning training programs for animal husbandry and medical care. She acted as an onsite consultant for the San Francisco Zoo to develop a Protected Contact and Training Management program for their 0.2 African elephants and 0.2 Asian elephants.

Under Ms. Kinzley's direction, the Oakland Zoo has participated in a wide variety of research projects. These projects include: seismic communication in elephants, ongoing behavioral study of the Zoo's elephants, evaluation of temporal gland secretions, monitoring of testosterone in the bull during musth and non-musth periods, testing of ibuprofen and phenylbutazone medications for elephants and evaluation of elephant milk for the development of milk replacer for calves that must be hand raised.

An active supporter of conservation programs, Ms Kinzley and the Oakland Zoo have raised and donated over \$100,000 to the Amboseli Elephant Research Project and the Samburu Elephant Research Project in Kenya Africa, and the Elephant Sanctuary in Tennessee.

Professional Associations

American Zoo and Aquarium Association
American Association of Zoo Keepers
Elephant Managers Association
Alliance for Elephants: Board Member
Contra Costa Avian Society
Bay Area Amphibian and Reptile Society

Education and Training

Bachelor of Science: Biology, California State University, Hayward	1992
Operant Conditioning Seminar and Workshop by Ellen Leach	1992
Chimpanzee Training and Enrichment Workshop; Bastrop, Texas	1993
Behavior Training Seminar and Workshop by Gary Priest	2002

Professional Experience

1990- Present Oakland Zoo, Oakland California

General Curator
Elephant Manager
Senior Keeper

1986-1990 Brookfield Zoo, Brookfield IL
Pachyderm Keeper

1982-1986 Phoenix Zoo, Phoenix Arizona
Animal Keeper

PAPERS PRESENTED AND PUBLISHED

Hand Raising and Diet Supplement of Calves

Colleen Kinzley, Karen Emanuelson, DVM
Published in AZA Elephant Husbandry Manual

Hand-Rearing Wild and Domestic Mammals, Chapter 28: Elephants

Karen Emanuelson, DVM and Colleen Kinzley
Published 2002

Improvement in Elephant Management at the Oakland Zoo

Colleen Kinzley
Presented at EMA Conference 2001

The Development and Use of a Birth Chute for Elephants

Colleen Kinzley
Presented at EMA Conference 2001

Salmonellosis and Subsequent Abortion in Two African Elephants

Karen Emanuelson, DVM and Colleen Kinzley
Presented AAZA, 2000

“What If?” When Protected Contact Elephant Management Isn’t

Colleen Kinzley
Presented at AZA Regional, 2000

Salmonella Typhimurium in 0.3 African Elephants at the Oakland Zoo

Colleen Kinzley and Karen Emanuelson, DVM
Presented at EMA, 1998

Managing Illness in an African Elephant at the Oakland Zoo

Colleen Kinzley
Published Journal of Elephant Management Association 1998

The Elephant Hand-Raising Notebook

Colleen Kinzley
Presented at Elephant Managers Association, 1997

Elephant Hand –Rearing chapter written for Neonate Hand Raising Notebook

Karen A. Emanuelson, DVM and Colleen Kinzley
Not yet published

Reproduction of African Elephants at the Oakland Zoo

Colleen Kinzley
Journal of Elephant Management, 1996

Training For Medical Examinations, Tests and Treatments in Protected Contact

Colleen Kinzley

Presented at EMA Conference 1995

The Transition from “Hands-Off” to “Hands-On” Elephant Management at the San Francisco Zoo

Colleen Kinzley

Presented at Regional AZA Conference 1995

Protected Contact Management of African Elephants at the Oakland Zoo

Colleen Kinzley

Presented at EMA Conference 1994

Restraint Facilities and Operant Conditioning in Large Land Mammals

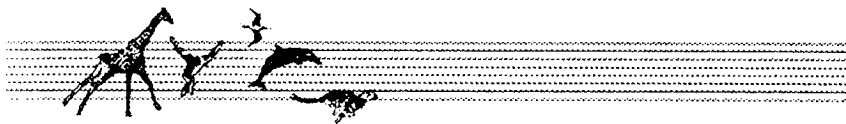
Colleen Kinzley

Presented at AZA Regional Conference, 1993

Design of Oakland Zoo’s Elephant Facility

Colleen Kinzley

Presented at EMA 1991



**Active
Environments**

7651 Santos Road
Lompoc, CA 93436

Gail Laule

**Principal / Director of Animal Behavior
Active Environments, Inc.**

1990 - present Animal Behavior Consultant

- Assist institutions in the development and implementation of animal behavior management programs for all species to enhance animal care and welfare.
- Provide review and assessment of elephant programs and training techniques and assist facilities in the conversion to a protected contact management system.
- Provide staff training in positive reinforcement and environmental enrichment techniques and problem solving through class work and instruction in the workplace.
- Provide design criteria and input to all phases of design process including facility specifications, animal programming, species recommendations, and data sheets and manuals to architects, exhibit designers, and zoological staff.

Selected Client List – Elephant Programs

AE personnel are the originators of Protected Contact, a positive reinforcement-based management system for elephants. AE assists facilities in the development and implementation of Protected Contact programs to heighten keeper safety and enhance the care and welfare of captive elephants.

Bronx Zoo, New York

Dallas Zoo, Texas

Singapore

Cleveland Zoo, Ohio

Detroit Zoo, Michigan

Houston Zoo, Texas

North Carolina Zoo, North Carolina

San Diego Wild Animal Park, California

Columbus Zoo, Ohio

Los Angeles Zoo, California

Woodland Park Zoo, Washington

El Paso Zoo, Texas

San Francisco Zoo, California

Singapore Zoo and Night Safari,

Sedgewick County Zoo, Kansas

San Antonio Zoo, Texas

Tulsa Zoo, Oklahoma

Lincoln Park Zoo

St. Louis Zoo, Missouri

Emmen Zoo, The Netherlands

Hogle Zoo, Utah

Pt. Defiance Zoo, Washington

Calgary Zoo, Alberta, Canada

Pro Bono Work - Elephant Programs

Morelia Zoo, Mexico

Beijing Zoo, China

Brazilia Zoo, Brazil

Belo Horizonte Zoo, Brazil

Workshop and School Instruction

- 2001 - Care and Management of Marine Mammals, Subic Bay, Philippines
Workshop for professionals and governmental personnel involved in the development and implementation of policies on the management and display of marine mammals in the Philippines.
- 2004 – Advanced Primate Training and Enrichment Workshop, Texas
Co-develop and teach 4 day workshop on enhancing the care and welfare of captive non-human primates. Workshop limited to those who already attended original PTEW
- 1992 - present Primate Training and Enrichment Workshop, Texas
Co-develop and teach 4 day workshop on enhancing the care and welfare of captive non-human primates. Workshop continues to be offered annually due to demand.
- 2000 – present Protected Contact Elephant Training and Enrichment Workshop, North Carolina
Organize, develop, and co-teach Active Environments' 4-day course on the use of protected contact training and management techniques to enhance the care and management of captive elephants. Workshop offered on-going basis.
- 1996-99 American Zoo Association (AZA) Principals of Elephant Management Course
Organize, develop, and co-teach 4-day course on the care and management of captive elephants to elephant managers and staff as part of AZA Management School.

Invited Speaker

Salk Institute, National Research Council, American Association of Zoo Veterinarians, American and Canadian Associations of Laboratory Animal Science, Scientists Center for Animal Welfare, First Environmental Enrichment Conference, Association of Primate Veterinarians, American Veterinary Medical Association, American Zoo Association, AZA Contraception Advisory Group, American Society of Primatologists, and International Society of Primatologists.

Committee Membership

Advisor - AZA Bear Taxon Advisory Group
Executive Board Member - AZA Behavior, Husbandry Advisory Group
Advisor - American Association of Zoo Keepers Training Committee
Advisor - Moorpark College Exotic Animal Training and Management Program
Advisory Board Member - Chimp Haven (Chimpanzee Sanctuary)
Advisory Board Member - Wildworks (Wildlife Education Programs)

Other Experience

- 1987-1990 Show and Training Supervisor - Los Angeles Zoo, California
Develop and implement husbandry training projects throughout Zoo; write, produce, present conservation education show featuring local wildlife.
- 1978-1987 Marine Mammal Trainer - Marineland, California
Care, training, and presentation of marine mammals including dolphin, sea lion, killer whale, pilot whale, harbor seal, walrus, white-sided dolphin. Develop and implement techniques to achieve voluntary cooperation in husbandry behaviors, improve socialization, and reduce abnormal behavior.

CURRICULUM VITAE JOYCE POOLE

PERSONAL

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Date of Birth May 1, 1956
Place of Birth Frankfurt, Germany
Nationality American
Marital Status Married; one child born 7 May, 1993

UNIVERSITY EDUCATION

Postdoctoral Princeton University Research Fellow 1984-1988.
Graduate University of Cambridge, UK 1979-1982.
Degree Ph.D. in Animal Behavior, 1983.
Thesis *Musth* and male-male competition in the African elephant.
Undergraduate Connecticut College 1974-1975.
Smith College 1976-1979.
Degree B.A. High Honors in Biological Sciences, Smith College, 1979.

GRADUATE RESEARCH EXPERIENCE

1998-ongoing Elephant behavioral repertoire; acoustic communication; vocal learning; welfare.
1984-1990 Elephant vocal and olfactory communication, Amboseli National Park, Kenya.
1989 Effects of poaching on elephant age structure and social and reproductive patterns, East Africa.
1980-1982 *Musth* and male-male competition among elephants, Amboseli National Park, Kenya

AWARDS

1996 Smith College Medal - "for exemplifying the true purpose of a liberal arts education".
1979 A. Brazier Howell Award for a student paper on *musth* in African elephants presented at the 1979 American Society of Mammalogists meetings.

EMPLOYMENT/CONSULTANCIES

2002-ongoing Research Director, Amboseli Elephant Research Project, Amboseli Trust for Elephants: overseeing monitoring, training and research.
1999-2001 Consultant, Ecco Travel Group AS: Wildlife issues.
7/96 & 7/97 Consultant, IMAX: Scientific Advisor Elephant film, Amboseli.
1994-1997 Consultant, Richard Leakey & Associates; Training; Lecturing; Writing a book; Advisor, wildlife documentaries.

- 1991-1994 Coordinator, Elephant Program, Kenya Wildlife Service: Setting and implementing Kenya's elephant conservation and management policy; supervising management oriented research; reconciling land use and other conflicts between elephants and people; building expertise.
- 1990-1991 Consultant, World Bank: Pre-Project Facility, Elephant Program and Research Policy Framework and Investment Program, Kenya Wildlife Service.
- 1990 Consultant, International Union for the Conservation of Nature: compiling overview of elephant conservation in Eastern Africa for Paris Donors Conference.
- 1989 Consultant, African Wildlife Foundation: assessing effect of poaching on East African elephant populations.

PROFESSIONAL SOCIETIES/ BOARD MEMBERSHIPS

- 2005 Member, Science Advisory Board, Captive Elephant Management Coalition
- 2003-ongoing Member, Advisory Board, Species Survival Network
- 2002-ongoing Trustee, Amboseli Trust for Elephants
- 1988-2001 Member, African Elephant Specialist Group, Species Survival Commission, IUCN
- 1979 Member, *Sigma Xi*

LECTURES

Moderate number of public and scholarly lectures since 1990.

TELEVISION/RADIO

Participated in over 85 science documentaries, talk shows and news interviews since 1986.

LANGUAGES

English - fluent
Kiswahili - fluent

PUBLICATIONS

Scientific publications, theses and reports:

In preparation:

I.G.A. Bradshaw, A.N. Schore, J.L. Brown, J. H. Poole & C. J. Moss. In Prep. Elephant Abnormal Behaviour: Affective Neuroethology and Conservation.

Poole, J.H. In prep. The behavioral context of African elephant acoustic communication. In: *The Amboseli Elephants: A Long-Term Perspective on a Long-Lived Mammal*. Moss, C.J. & Croze, H.J. (Eds.) University of Chicago Press.

Poole, J.H. In prep. Visual and tactile signals of elephants. In: *The Amboseli Elephants: A Long-Term Perspective on a Long-Lived Mammal*. Moss, C.J. & Croze, H.J. (Eds.) University of Chicago Press.

Poole, J.H., P.C. Lee, & C.J. Moss. In prep. Long-term reproductive patterns and musth. In: *The Amboseli Elephants: A Long-Term Perspective on a Long-Lived Mammal*. Moss, C.J. & Croze, H.J. (Eds.) University of Chicago Press.

Lee, P.C. & J.H. Poole. In Prep. Male elephant social dynamics: Independence and beyond. In: *The Amboseli Elephants: A Long-Term Perspective on a Long-Lived Mamma*. Moss, C.J. & Croze, H.J. (Eds.) University of Chicago Press.

In press and published:

Poole, J.H. In press. Elephant sociality and complexity: The scientific evidence. In: *Never Forgetting: Elephants and Ethics*. C. Wemmer & K. Christen (Eds.). Smithsonian Press.

Poole, J.H., P. L. Tyack, A. S. Stoeger-Horwath & S. Watwood. 2005. Elephants are capable of vocal learning. *Nature*, 434: 455-456.

I.G.A. Bradshaw, A.N. Schore, J.L. Brown, J.H. Poole & C. J. Moss. 2005. Elephant Breakdown. Social trauma: Early trauma and social disruption can affect the physiology, behaviour and culture of animals and humans over generations. *Nature*, 433: 807.

Poole, J. H. & P.K. Granli. 2004. The visual, tactile and acoustic signals of play in African savannah elephants. In: *Endangered Elephants, past present & future*. Jayewardene, Jayantha. (Ed.) Proceedings of the Symposium on Human Elephant Relationships and Conflicts, Sri Lanka, September 2003. Biodiversity & Elephant Conservation Trust, Colombo. Pages 44-50.

Slotow, R., G. van Dyke, J. Poole, B. Page & A. Klocke. 2000. Older bull elephants control young males. *Nature*, 408: 425-426.

Poole, J.H. 1999. Signals and Assessment in African Elephants: Evidence from playback experiments. *Animal Behaviour*, 58:185-193.

Dobson, A. P. and J. H. Poole 1998. Conspecific aggregation and conservation biology. In: *Behavioral Ecology and Conservation Biology*. T. Caro (Ed.). Oxford, Oxford University Press: pp.193-208.

Poole, J.H. 1998. An exploration of a commonality between ourselves and elephants. Special Issue *Etica & Animali*. 9:85-110.

Poole, J. H. 1997. A Description of African elephant vocalizations. Prepared for use by Discovery for the IMAX Elephant film. Typescript report. 65p.

Poole, J. & M. Reuling. 1997. A survey of elephants and other wildlife of the West Kilimanjaro Basin, Tanzania. Typescript Report. 66p.

Poole, J.H. 1996. The African Elephant. In: *Studying Elephants*. Kadzo Kangwana (Ed.). African Wildlife Foundation Technical Handbook Series: pp.1-8.

Poole, J.H. & R.E. Leakey. 1996. Kenya. In: *Decentralization and Biodiversity Conservation*. Ernst Lutz & Julian Caldecott (Ed.). A World Bank Symposium: pp. 55-64.

Poole, J.H. 1995. Conflict, compression and management: consequences for elephant behaviour [Abstract]. *Excellence in wildlife stewardship through science and education*. The Wildlife Society Second Annual Conference. September 12-17, 1995. Portland Oregon. Session 3 Symposium. Conservation of African and Asian elephants: wild and captive populations. p.103.

Poole, J.H. 1994. Sex differences in the behavior of African elephants. In: *The Differences Between the Sexes*. R. Short & E. Balaban (Eds.). Cambridge University Press: pp. 331-346.

Poole, J.H. 1994. Logistical the ethical considerations in the management of elephant populations through fertility regulation. In: *Proceedings, 2nd International Conference on Advances in Reproductive Research in Man and Animals*. Charanjit Singh Bamba (Ed.). Institute of Primate Research, National Museums of Kenya: pp. 278-283.

Poole, J.H. 1993. Kenya's Initiatives in Elephant Fertility Regulation and Population Control Techniques. *Pachyderm*. 16:62-65.

Poole, JH and A. P. Dobson. 1992. Ivory: Why the ban must stay! *Conservation Biology* 6: 149-151.

- Poole, J.H., N. Aggarwal, R. Sinange, S. Nganga, M. Broton, I. Douglas-Hamilton. 1992. *The Status of Kenya's elephants, 1992*. A report by the Kenya Wildlife Service and the Department of Resource Surveys and Remote Sensing. Typescript. 60p.
- Reuling, M., K. Mwathe, M Litoroh & J. Poole. 1992. *A survey of Shimba Hills elephant population*. Elephant Programme, Kenya Wildlife Service. Typescript. 23p.
- Dobson, A.P., G.M. Mace, J.H. Poole and R.A. Brett. 1991. Conservation biology: The ecology and genetics of endangered species. In: *Genes in Ecology*. R.J. Berry, T.J. Crawford & G.M. Hewitt (Eds.). The 33rd Symposium of the British Ecological Society. Blackwell Scientific Publications, London: pp.405-429.
- Poole, J.H. 1991. *Elephant Conservation Plan, Kenya*. Kenya Wildlife Service, Ministry of Tourism and Wildlife, Typescript.
- Poole, J.H. 1990. Elephant Conservation in Eastern Africa: A Regional Overview. In *Regional Perspectives and Situation Regarding Elephant Conservation and the Ivory Trade*. Produced for Paris Donors Meeting. IUCN Typescript. 37p.
- Poole, J.H. 1990. Elephant Conservation and Management. Annex 7b. In *The Zebra Book. Policy Framework and Five-Year Investment Programme*. Kenya Wildlife Service Publication. 54p.
- Poole, J.H. 1989. Announcing intent: the aggressive state of musth in African elephants. *Anim. Behav.* 37: 140-152.
- Poole, J.H. 1989. Mate guarding, reproductive success and female choice in African elephants. *Anim. Behav.* 37: 842-849.
- Poole, J.H. and C.J. Moss. 1989. Elephant mate searching: Group dynamics and vocal and olfactory communication. In: *The Biology of Large African Mammals in their Environment*. P.A. Jewell & G.M.O. Maloiy (Eds.). Oxford: Clarendon Press. Proceedings of *Sym. Zool. Soc. Lond.* 61:111-125.
- Poole, J.H. 1989. The effects of poaching on the age structures and social and reproductive patterns of selected East African elephant populations. In: *The Ivory Trade and the Future of the African Elephant*. Volume II Technical Reports. The Ivory Trade Review Group. Prepared for the 7th CITES Conference of the Parties.
- Poole, J.H. and J.B. Thomsen, 1989. Elephants are not beetles: implications of the ivory trade for the survival of the African elephant. *Oryx* 23: 188-198.
- Poole, J.H., K.B. Payne, W. Langbauer Jr, C.J. Moss. 1988. The social contexts of some very low frequency calls of African elephants. *Behav. Ecol. Sociobiol.* 22:385-392.
- Poole, J.H. 1987. Rutting behavior in African elephants: the phenomenon of musth. *Behavior*. 102: 283-316.
- Poole, J.H., L.H. Kasman, E.C. Ramsay, B.L. Lasley. 1984. Musth and urinary testosterone concentrations in the African elephant, *Loxodonta africana*. *J. Reprod. Fert.* 70: 255-260.
- Poole, J.H. and C.J. Moss. 1983. Musth discovered in the African elephant. *African Elephant and Rhino Newsletter* 1:8.
- Poole, J.H. with C.J. Moss. 1983. Relationships and social structure in African elephants. In: *Primate Social Relationships: an Integrated Approach*. Hinde, RA (Ed.). Blackwell Scientific Publications, Oxford: pp 315-325.
- Poole, J.H. 1982. Musth and male-male competition in the African elephant. Ph.D. Thesis. University of Cambridge.
- Poole, J.H. and C.J. Moss. 1981. Musth in the African elephant, *Loxodonta africana*. *Nature*, 292:830-831.

Book Chapters (Popular)

- Poole, J. H., I. Whyte, & P. Kahumbu. In press. Savanna elephant profile. In: *The Mammals of Africa*. Jonathon Kingdon, David Happold & Thomas Butynski (Eds.). Academic Press.
- Poole, J.H. 2000. Family reunions. In: *The Smile of the Dolphin: Remarkable Accounts of Animal Emotions*, Marc Bekoff (Ed.). Discovery Books, New York: pp. 22-23.
- Poole, J. H. 2000. When Bonds are broken. In: *The Smile of the Dolphin: Remarkable Accounts of Animal Emotions*. Marc Bekoff (Ed.). Discovery Books, New York: pp. 142-143
- Poole, J.H. 1998. Communication and social structure of African elephants. In: *Elephants*. Care for the Wild International, UK.: pp 40-52.
- Poole, J.H. 1992. Musth in African elephants. In: Shoshani Jeheskel (Ed.). *Elephants*. London: Simon & Schuster. pp. 87-91.

Popular Articles:

- Poole, J.H. 2000. *Trees of DreamCamp - Cultural uses by the Maasai*. Ecco Travel Group AS.
- Poole, J.H. 1999. Ella's Easter Baby. *Care for the Wild Magazine*.
- Poole, J.H. 1999. Voices of elephants. *Sotokoto* 8(2): 14-16.
- Poole, J.H., 1997. Tuskless. *Swara* 20(3): 26.
- Poole, JH and A. P. Dobson.1992. Exploitation and recovery of African elephant populations. *Elephant and Ivory Information Service*. African Wildlife Foundation. Special Issue 19:1-3.
- Poole, J.H. 1992. Kenya's elephants - a very different story to tell. *Swara* 15(1): 29-31.
- Poole, J.H. 1988. Elephants have more to say than meets the ear. *Wildlife News*. African Wildlife Foundation.
- Poole, J.H., W. Njiraini, S. Sayialel. 1988. Elephant supersense. *Komba*. Wildlife Clubs.
- Poole, J.H. 1988. Elephant trunk calls. *Swara* 11(6): 28-31.
- Poole, J.H. 1987. Raging Bulls. *Animal Kingdom* 90 (6): 18-25.
- Poole, J.H. 1987. Elephants in musth, lust. *Natural History*. 96 (11): 46-55.

Books:

- Poole, J.H. 1997. *Elephants*. Colin Baxter Photography, Grantown-on-Spey, Scotland.
- Poole, J.H. 1996. *Coming of Age with Elephants*. Hyperion Press, New York; Hodder & Stoughton, London.