

**Kimbrell\* & Mendelson\*\* L.L.P.**  
660 Pennsylvania Ave., S.E.  
Suite 302  
Washington, DC 20003

DATE: 2/1  
TO: Suzanne  
FAX NO: 928 - 268 - 9998  
FROM: Joseph Mendelson, III Macie  
NUMBER OF PAGES (including cover page): 51  
NOTE:

### Notice of Confidentiality

The information contained in and transmitted with this facsimile is confidential and may also be subject to attorney client privilege and the work product doctrine. It is intended only for the individual(s) or entity designated above. You are hereby notified that any dissemination, distribution, copying, use of, or reliance upon the information contained in and transmitted with this facsimile by or to anyone other than the recipient designated above is unauthorized and prohibited. If you have received this facsimile in error, please notify Kimbrell & Mendelson LLP by telephone (202) 547-6485. Any facsimile erroneously transmitted to you should be immediately returned to sender by U.S. Mail, or if authorization is granted by sender, destroyed.

\*Admitted in Pennsylvania. Limited to matters and proceedings before federal courts and agencies.  
\*\* Admitted in District of Columbia & Maryland

# DECLARATIONS

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNNS	)
Secretary of Agriculture	)
	)
Respondent	)

**DECLARATION OF MICHAEL SCHMIDT**

I, Michael Schmidt, hereby declare:

1. I have twenty-five years experience as a veterinarian for zoo animals. During my career as a zoo veterinarian I specialized in the care and breeding of elephants in zoos and I have also done research with timber elephants in Asia. I started working as a veterinarian in the Portland, Oregon Zoo in 1973. I left in 1998 because I believed that, due to management problems within the organization, I was no longer able to be effective in administering first-rate veterinary care to the animals. The year after I left the zoo, it was cited by the U.S. Department of Agriculture for abusing an elephant and for failure to provide prompt veterinary care. I do not plan to work for a zoo again.

2. Life in the zoo causes a number of significant problems for elephants. Chronic foot diseases are the number one danger and cause of suffering and premature death for zoo elephants. As elephants get older, the foot problems they acquire from years of living in the zoo tend to reoccur, become chronic and worsen, eventually taking

a deadly toll. Foot infections start in the soft tissues of the foot and can spread to the bone. Once the foot infection is in the bone, it is a virtual death sentence for the zoo elephant. Bone infections are extremely painful and difficult to cure.

3. Elephants in zoos suffer from inadequate quantity and inadequate quality of space problems. Qualitatively, their concrete and steel indoor and flat sand yard outdoor living conditions fail to meet the elephants' biological and behavioral needs. For example, the vast expanse of a natural forest habitat for elephants provides a complex and stimulating 3-dimensional environment; while a zoo can only provide a sterile and boring 2-dimensional flat sand yard. Inadequate quantity of space leads to inactivity, boredom, inadequate exercise, and poor physical fitness. These very large animals have evolved to require miles of exercise every day. The people who work most closely with elephants in zoos are aware of these problems. I polled a dozen experienced elephant keepers at a seminar and only two thought their elephants had enough space.

4. Elephants in zoos live two decades less than their normal expected life span in the wild. In the wild, elephants have a typical home range of 50 by 20 miles which is approximately 640,000 acres. This area consists of mountains, valleys, grasslands, forests, and rivers. A zoo on the other hand, does not have this textured terrain and has an extremely small amount of space for the elephants to live when compared to the amount of space elephants use in the wild. A traditional zoo typically provides somewhere between 1 and 3-4 acres for elephants. While such space may be adequate for a couple of domesticated horses or cows, it is far below the necessary space required to meet the biological and behavioral needs of these largest of the living land animals.

5. Even though the larger safari-style animal parks have additional outside terrain that makes them better than traditional zoos, elephants living in them still spend the major part of their lives indoors in a small holding area where they are often chained in place at night after the zoo keepers have gone home. Elephants spend about 16 hours a day in holding areas, and when it is cold outside they spend all day inside. Even if an elephant is let outside, it will be bored because the quality and quantity of space provided for it still fall significantly short of being able to meet the elephant's biological and behavioral needs.

6. A main reason zoo elephants have foot problems is due to the use of concrete floors. In the wild, elephants walk on grass, mud, clay, and sand. These surfaces give under their feet and their toenails dig into the earth. This allows their feet to wear normally. A concrete floor has no give and thus, the elephant walks flat footed. There is abnormal wear on the elephant's feet. As a result, the feet and nails of zoo elephants require regular corrective trimming. Due to the daily abuse to the feet, the elephants' feet become chronically infected by bacteria and fungi. My experience has shown me that concrete flooring injures and kills elephants.

To summarize: in the zoo, over time, the daily accumulation of damage from standing and walking on flat concrete floors tends to cause joint injury and predisposes the elephant's feet to infection from abnormal wear. As the joints and feet become progressively injured by life spent on a concrete floor, the pain the elephant feels makes it reluctant to move around as much on its sore legs and feet. This creates a vicious circle and downward spiral of pain, followed by less movement, causing further injury, causing more pain, causing even less movement, etc. It is a continuous, gradual

process that does its damage bit-by bit and this damage continues hourly, daily, weekly, monthly and through the long decades of an elephant's life in the zoo.

7. Another factor that causes foot problems for zoo elephants is the unclean floors. Elephants cannot avoid standing in their own waste for long periods while kept indoors. The dung contains harmful bacteria and the urine damages the tissues of their feet. The abnormal wear from walking on the concrete floor causes fissures and cracks in elephants' feet. As a result, dung and urine can get inside their feet and cause harm.

8. When a zoo elephant gets a foot infection, it is difficult to treat and cure. There is limited blood supply to the tissues of their feet due to the type of tissues present and the massive weight pressing on the arteries and veins in the foot. Antibiotics often do not reach curative levels in the foot and the healing is delayed due to the poor blood supply to affected tissues in the foot. Another significant problem with treating foot infections in zoo elephants is the danger to the zoo keeper and veterinarian in treating these painful conditions.

9. During my tenure as zoo veterinarian, the Portland Zoo implemented several measures to prevent the elephants from suffering problems with their feet. First, the zoo keepers cleaned all the stalls in the middle of the night so the elephants were not standing in their waste for 16 hours. Next, the zoo put grooves in the indoor concrete floors to allow the urine to flow out. These measures were both implemented at my suggestion as part of a preventive medical approach to foot problems in zoo elephants.

10. The zoo managers chose not implement my third preventive medical suggestion of providing indoor sand floors, due to this concept's novelty and expense. I believe this third recommendation would have greatly benefitted the elephants. I

suggested that the flooring be covered with sand. This would have allowed the elephants to walk normally and provide a cushioning effect to help their joints, and would give them a comfortable place to lie down. Also, indoor sand absorbs urine and dries out dung making it possible for the elephants to avoid their own wastes; thus reducing the exposure of their feet to injurious bacteria and fungi. It is a well-understood principle in the dairy industry that providing a natural substrate instead of concrete is a proven tactic for eliminating the chronic foot problems found in cattle kept on concrete flooring.

11. Despite thousands of man-hours of treatments and tens of thousands of dollars of applied medications, four adult elephants died as a consequence of foot disease during my tenure as the veterinarian at the Portland Zoo. I believe that these elephants would still be alive today if they had been left in the wild.

12. Elephants in zoos also have arthritis which is caused primarily by spending their lives on concrete floors. The elephants' joints do not give when they walk on concrete and thus their joints must do the extra giving. This results in cumulative damage to their joints. Zoo elephants also do not get normal exercise that they would get in the wild. This lack of exercise and lack of normal joint movement causes damage to their joints and contributes to arthritis. As noted above, arthritis exacerbates foot problems in zoo elephants.

13. Rather than zoos preventing and eliminating the conditions that cause the problems to elephants' feet and joints (such as getting them off the concrete floors), zoos have instead come up with a variety of chronic treatments for combating the foot problems.

14. When elephants can live in a zoo designed to meet their biological and

behavioral needs, these 'zoo-genic' diseases will be eliminated and elephants can live healthy lives in captivity.

15. I discuss these issues fully in my book, *Jumbo Ghosts* (Xlibris, 2002). Along with describing my experiences at the Portland Zoo and with timber elephants in Asia, I outline in the book some recommendations for eliminating the dangers to elephants in zoos. These recommendations include:

Get all zoo elephants off concrete floors. Clean sand should be put on the floors. This will help with foot problems and arthritis. This change is worth the cost because it can be lifesaving to the elephant. If the elephants eat the sand, the zoo can put a lubricant in their feed to facilitate passage of the sand and/or a harmless bad tasting chemical in the sand to deter them from eating it.

As for the amount of space elephants need, my professional experience with zoo elephants and timber elephants in Asia convinces me that a zoological park in the 21st Century should have 1280 acres of land for a herd of captive elephants (e.g. a normal social group of 10-20 animals). Only in a park with this much variable terrain, can that terrain be managed in such a manner as to withstand--without cumulative degradation--the continual wear and tear caused by a herd of elephants. This area is much greater than that which captive elephants have now, and if properly-managed, it should be able to fully meet the biological and behavioral needs of elephants in captivity by providing areas containing changes in elevation, forests, mud wallows, bamboo groves, ponds, and streams, etc.

Temperature is also an issue that must be considered in establishing 21<sup>st</sup> Century sites for elephants. Common sense indicates that these sites need to be in mild

climatic zones so that the elephants can be outside most of the time.

Indoor enclosures should consist of an area with natural substrate flooring similar in size to that of three or four typical indoor riding arenas for horses.

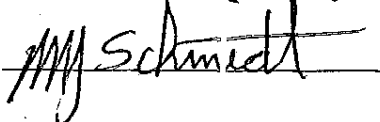
16. If these recommendations were to be implemented, I believe that the current chronic foot infections and arthritis that elephants experience in zoos would be eliminated.

17. In regard to elephant sanctuaries, there are significant benefits to using sanctuaries for elephants. Sanctuaries can provide much more space, trees, ponds, meadows, etc. These conditions more closely meet the biological and behavioral needs of elephants than do zoos.

18. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor the health of elephants at zoos. When the agency finds that elephants are suffering from chronic disease and/or are not healthy due to inadequate space and/or husbandry conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal or move the elephant from the zoo to an environment such as a sanctuary, where the elephant's health can improve.

19. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 3, 2005



Michael Schmidt, DVM

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNIS	)
Secretary of Agriculture	)
	)
Respondent	)

**DECLARATION OF LES SCHOBERT**

I, Les Schobert, hereby declare:

1. I have over 30 years experience working with elephants. I worked as a general curator at the Los Angeles Zoo for five years, at the North Carolina Zoo as general curator for twelve years, and at the Busch Gardens Zoo in various capacities for ten years. I am now working as a consultant to various non profit organizations including, In Defense of Animals where I focus on the quality of life for captive elephants. I am an expert in the care, handling, and maintenance of elephants.

2. My exposure to zoos began at an early age because my father was a veterinarian for zoos. I traveled around the country visiting animals at zoos with him. My father helped start the American Zoo Veterinary Association. I was also a longstanding professional member of the American Zoo and Aquarium Association (AZA) and chaired a variety of important committees for this organization.

3. My last position at a zoo was with the Los Angeles Zoo. While I was at the Los Angeles Zoo, I helped improve the conditions for the elephants. The zoo made three big changes. First, the zoo switched its facility to accommodate a method of handling the elephant called protective contact method (this means that an elephant keeper is behind a barrier and there is no negative reinforcement). This method was only used for the elephant Billy while I was there. The zoo was only beginning to start this method with the other elephants.

4. Second, the zoo allowed the elephants to have free access to their yard at night. Instead of being chained and standing in their own waste for sixteen hours, as they had in the past, the elephants were free to move around at night either in the barn or outside.

5. Third, the barn was renovated which meant the installation of heated floors, installation of remote hydraulically operated elephant doors, a restraint device, and a closed circuit camera system. I believe that these changes in their living conditions increased the elephants' quality of life and helped to improve the health of their feet.

6. Although these changes were an improvement in their living conditions, some of the elephants still suffered problems with their feet and joints. For example, Cita suffered ongoing chronic foot and joint problems while I was at the zoo. She had foot abscesses and arthritis for over twenty years. I think she suffered from foot and joint problems because for many years she was confined in a small enclosure and lived on hard concrete flooring. Her physical condition is endemic in captive elephants.

7. Although I helped improve the conditions for the elephants, I was unable to improve the conditions for many of the other animals, and therefore, I left this zoo. I

felt that the animals at this zoo were suffering from a poor quality of life. I was frustrated by the management of the zoo and felt that I could not be effective in helping the animals. Rather than putting money into the animal facilities, the zoo concentrated on marketing the zoo to the public. I want to point out that even with these animal welfare problems, this zoo still received AZA accreditation. I have found that far too often, the AZA places the commercial interests of the zoo over the interests of its animals.

8. While working for these zoos, I questioned why the elephants always seemed to have foot problems. Is it a problem that is inherent in the species? I thought about this and realized that unlike captive elephants, elephants in the wild walk hundreds of miles and do not need foot care. Wild elephants also do not stand in their own feces and urine. Captive elephants on the other hand, have to stand in their own urine and feces until a keeper arrives in the morning. This means that elephants are confined for at least sixteen hours a day and many elephants are chained all night.

9. The more experience I gained, the more I learned that foot problems are not inherent to elephants. Instead, these foot problems are due to lack of space and exercise and unclean conditions. Standing on concrete is not healthy for elephants' feet because a hard surface can cause joint problems. Standing also does not wear the pads evenly. As a result, keepers have to trim the pads on the elephants' feet. The frequent problem of foot abscesses occur because elephants are standing in urine and feces. It is a constant battle to get rid of foot problems because when one foot is sore, the elephant puts all the weight on the other foot. Due to the increased weight on the healthy foot, this foot begins to suffer from foot problems. Thus, I believe that foot disease, which can be deadly for elephants, is directly attributable to zoo conditions such as a hard concrete

floors, compacted soil and lack of space. As long as elephants languish in zoos, their lives are in jeopardy.

10. I also believe that climate conditions are connected to the space issue and thus, the health of the animal. Elephants that live in a cold and wet climate will have to be kept in stalls all winter. Several factors go into determining whether elephants should be let outside. These factors include looking at the sustained temperature (approximately 40 to 50 degrees is the lower limit for letting elephants go outside), precipitation, wind and humidity. I believe that elephants should not be exhibited at any zoo where the elephants have to be kept indoors for over twenty days out of the year.

11. Elephants housed in northern zoos, suffering from inadequate exercise, also exhibit stereotypic behavior (repetitive behavior). Examples of stereotypic behavior include, head bobbing, perpetual swaying (exaggerated), male masturbation, females pulling on teeth (elongates teeth), and sticking trunk in between tusk (wears off hair). Stereotypic behavior also causes foot problems such as nail cracks, abscesses, and abrasions to the sole of the foot.

12. Due to the severe health problems suffered by elephants in northern zoos, I believe that no elephants should be kept in northern zoos. As a result of living in a northern climate and having to keep elephants inside, or warehousing the elephants for the winter, the amount of space elephants have to move is severely limited. I believe that the elephants' foot problems will not be alleviated in northern zoos. The problem will only get worse.

13. Next, the AZA standards for elephant enclosures are far from adequate. These standards are comparable to putting a 100 pound Labrador dog into a 5 feet by 6

feet bathroom for its entire life. The AZA standards are not benefiting the health of elephants. Instead, animals at AZA accredited zoos are suffering physical problems due to their inadequate space and conditions.

14. I believe that at a minimum, an elephant exhibit should have fifteen acres for no more than six elephants. This amount of space will stimulate natural behaviors and allow for proper socialization of elephants. The zoo needs to encourage the elephants to utilize these acres through different stimuli and consistently maintain the grounds by doing the following:

- (1) Feeding them at various locations throughout the exhibit,
- (2) Providing behavioral enrichment (such as a tree stump to dig-up),
- (3) Giving them access to varied terrain and vegetation, and
- (4) Maintaining a grassy substrate, especially around the barn where the ground can become compacted quickly due to the constant use by the elephants.

15. I project that about 90% of foot problems would disappear if the area is used by the elephants. Evidence to support this statement is exhibited at sanctuaries. PAWS sanctuary for example, allows the elephants to get off the concrete and move in a large amount of vast terrain allowing their foot problems to heal.

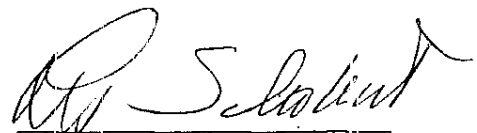
16. Another problem at zoos that concerns me is the lack of a uniform system for keeping medical records/history. As required by the Animal Welfare Act, veterinarians and/or zoo keepers should regularly be observing elephants in order to treat, monitor, and prevent health problems in these animals. The elephant records should be extensive and include all behavioral issues. The records should accompany any

individual elephant as it moves from exhibit to exhibit. I also believe that photographs should be an integral part of this documentation.

17. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA should be spearheading the effort to demand that zoos provide adequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor both the physical and mental health of elephants at zoos. When the agency finds that elephants are not healthy due to inadequate space and conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal or move the elephant from the zoo to an environment, such as a sanctuary, where the elephant's health can improve.

18. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 19/05/05, 2005

  
\_\_\_\_\_  
Les Schobert

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

_____	)
IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNNS	)
Secretary of Agriculture	)
	)
Respondent	)
_____	)

**DECLARATION OF DR. DAPHNE SHELDRIK**

I, Dr. Daphne Shelrick, hereby declare:

1. I have been intimately involved with elephants for the past 50 years, both in a wild situation for 30 years in Kenya's Tsavo East National Park, and having hand-reared 62 infant orphaned calves, 9 of which are still in our Nairobi Nursery, 34 undergoing rehabilitation back into the wild community of Tsavo, and the rest now living wild and free having been successfully returned where they rightly belong.
2. I am recognized as an international authority on the rearing of wild creatures and am the first person to have perfected the milk formula and husbandry for infant milk dependent elephants and rhinos.
3. I can categorically say that elephants should not be confined in captivity, no matter how attractive the facilities may appear to us humans. These are animals that mirror humans in terms of emotion, age progression and longevity, and above all, they

need their family, their friends and space. No artificial situation can give an elephant what it needs in terms of space, for 100 miles is a mere stroll for these animals.

4. The adequate space for elephants consists of hundreds of square miles. For example, our ten year old bull covered 100 kilometers in a day and over 90 the very next day. Elephants are capable of covering vast distances. Dr. Ian Douglas Hamilton has tracked elephants' movements for many years and found that some utilize enormous home ranges, while others need less. However, less for an elephant is still something that cannot be equated in captive terms.

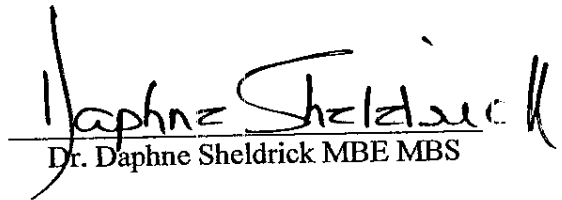
5. Consider this – life imprisonment is the most severe punishment we humans mete out to transgressors, and life imprisonment for an elephant is the same. It frustrates inherent instinct, and the genetic memory with which elephants are endowed at birth, and turns them psychotic. The kindest thing any human can do for a captive elephant is to set it free, allow it access to the stimulation of others, and even though one cannot give it adequate space in elephant terms, at least give it a larger place to live out its life than life imprisonment in a zoo. I believe that we will live to see the day that keeping elephants in zoos will be banned entirely. It is cruel and unethical, and there is nothing educational in looking at a miserable captive in an unnatural setting. I strongly supported the closing down of the elephant exhibit at the San Francisco Zoo.

6. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor the health of elephants at zoos. When the agency finds that elephants are not healthy due to inadequate space and conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal

or move the elephant from the zoo to an environment, such as a sanctuary, where the elephant's health can improve.

7. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 19. 5., 2005

  
Dr. Daphne Sheldrick MBE MBS

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

_____	)
IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNNS	)
Secretary of Agriculture	)
	)
Respondent	)
_____	)

**DECLARATION OF PAT DERBY**

I, Pat Derby, hereby declare:

1. I have been working with elephants for 35 years. I did not like how other people handled animals so I started my own sanctuary at the Performing Animal Welfare Society (PAWS). I am the director and founder of PAWS.

2. PAWS is a nonprofit organization that is recognized internationally for its leadership in the protection of captive wildlife. PAWS provides a peaceful sanctuary for abused, neglected, and abandoned animals and promotes national and international programs to gain permanent protection for all captive wildlife.

3. We have a sanctuary in Galt, CA and in San Andreas, CA. Galt's elephant area has 4 acres and is much bigger than most zoos. The Galt sanctuary consists of flat pastureland covered with green grass and the terrain is very soft clay. The San Andreas sanctuary (ARK 2000) has 2,300 acres and is rockier and consists of rolling hills and grass. This sanctuary has two barns that are each 20,000 square feet with hydraulic gates,

an indoor Jacuzzi pool and a hydraulic elephant restraint device for treating sick and injured elephants. The barn for the African elephants consists of heated concrete floors that are sloped for proper drainage. The Asian elephant barn has a dirt floor that provides a natural substrate for their feet. This dirt floor is very innovative. We are the first facility that I am aware of that has used this type of substrate. We plan to convert the African barn to dirt flooring in the future. In addition, the veterinarians at the sanctuaries have extensive experience with treating tuberculosis in elephants along with providing foot care and other medical treatments.

4. Unlike most zoos, trained staff live on the property and provide twenty-four hour monitoring. This is important for aging, arthritic elephants.

5. All the elephants are at the San Andreas facility. We have 8 elephants. Their names are 71, Mara, Lulu, Annie, Minnie, Rebecca, Winky, and Wanda. Here is a brief description of the foot and joint condition of each elephant.

6. Starting with 71, we raised this 23 year old female African elephant from a baby. She has never been chained or confined in small spaces. Instead, she has had access to large spaces with lots of freedom of movement. Because she has had adequate living conditions, including sufficient space to move and exercise, she does not have joint or foot problems.

7. Mara is a 23 year old female African elephant who lived for a short period of time in a zoo where she was chained. She was then sent to a larger facility where she had freedom to move within a large space. She was 10 years old when she came to the sanctuary. Because she has had adequate living conditions for many years, including sufficient space to move and exercise, she does not have joint or foot problems.

8. Lulu is a 39 year old female African elephant from the San Francisco Zoo. She was never managed through the free contact method; therefore, she was never chained. She lived in a small space on concrete flooring but she had freedom to move through the enclosure and the barn. She has not had foot or joint problems since living at PAWS.

9. Annie is a 49 year old female Asian elephant who came to the sanctuary in 1994 from the Milwaukee County Zoo. She had lived most of her life confined in a small space and much of the time she was chained. When she arrived at the sanctuary, she had major foot problems and she suffered from arthritis. Her condition began to improve at the Galt Facility where she was allowed to roam free on 1.5 acres of all natural substrate. She's now at the ARK 2000 Sanctuary and has a very large area to exercise and she walks on natural substrate. Her condition has greatly improved.

10. Minnie is a 50 year old female Asian elephant who traveled with the circus most of her life. She had fairly chronic joint problems and a very stiff right front leg when she arrived. Her condition has greatly improved since she's been at the sanctuary.

11. Rebecca is a 43 year old female Asian elephant from the circus. She did not have any noticeable foot or joint problems and she moves well.

12. Winky, 53, and Wanda, 47, are female Asian elephants from the Detroit Zoo. Both elephants have foot abscesses and suffer from arthritis. Since arriving at the sanctuary in April, both elephants' foot and joint conditions have improved greatly, even according to their Detroit Zoo keepers.

13. To prevent foot and joint problems, elephants need adequate space, plenty of exercise, and soft natural substrate. The reason why elephants with foot and joint problems improve at the sanctuary is because the elephants are given a large amount of space to move on natural substrate and this movement is uninhibited allowing them to exercise their muscles and joints.

14. As described above, a few American Zoo & Aquarium Association (AZA) accredited facilities have sent their elephants to our sanctuaries including, the San Francisco Zoo and the Detroit Zoo. Sadly, Tinkerbelle, the elephant from the San Francisco Zoo had to be euthanized shortly after coming to the sanctuary because she was unable to move around comfortably due to the severe damage to her feet.

15. Throughout the years, PAWS has monitored zoos with inadequate conditions. The Milwaukee County Zoo for example is a zoo that is accredited by the AZA yet their living conditions are far from adequate. This zoo housed four Asian elephants, Lota, Moola, Tammy, and Annie in an antiquated, undersized enclosure that provided no environmental enrichment or complexity. The enclosure was too small and poorly designed. The elephants were confined on chains on cold, wet concrete for long, harsh winters.

16. One elephant, Lota, continually attacked another elephant Tammy. Lota, age 44, was shipped to the Hawthorn Corporation, a company that rents elephants and tigers to circuses. Lota traveled and performed with many circuses since this placement. She contracted tuberculosis and steadily lost weight. The poor condition of Lota and her subsequent death has caused the United States Department of Agriculture to investigate.

17. The AZA never threatened the Milwaukee County Zoo with revocation of its accreditation for the transfer of Lota or for the zoo's inhumane training sessions which were documented on videotapes. After viewing the videotapes, the Milwaukee County Executives mandated that the two remaining elephants, Tammy and Annie, be transferred to the PAWS sanctuary in Galt, CA. Tammy and Annie came to the sanctuary in 1995.

18. PAWS staff and veterinarians developed a daily regime of foot soaks and treatment for Tammy's foot problems and arthritis. After living at the sanctuary, both elephants began to exhibit natural behaviors and vocalizations that were unfamiliar to the Milwaukee zoo staff who mistook the sounds as anger.

19. Tammy died in 2003 at the age of 53 of degenerative joint disease, a common and fatal ailment of zoo elephants. Annie, age 49, now lives at the sanctuary in San Andreas, CA.

20. Furthermore, PAWS is outraged over the death of Tatima, an African elephant, at the Lincoln Park Zoo. Tatima and her companions, Peaches and Wanki (who have also recently died) were transferred to this zoo from the San Diego Zoo. Several elephant scientists opposed the move due to the concern that the drastic change in space and climate would adversely affect the elephants' health. I do not believe that elephants should be in northern zoos because of the amount of days elephants have to stay indoors.

21. Although the stated cause of Tatima's death is a viral disease, I find it odd that the elephant lived for many years with no symptoms of this disease at the San Diego Zoo and that the disease was not diagnosed before she died.

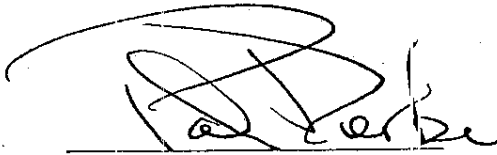
22. Elephants kept at many AZA accredited zoos suffer from foot and joint problems yet as shown by the above examples, when the elephants are transferred to

PAWS, and given adequate space and living conditions, they have shown great improvements in their health.

23. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor the health of elephants at zoos. When the agency finds that elephants are not healthy due to inadequate space and conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal or move the elephant from the zoo to an environment, such as a sanctuary, where the elephant's health can improve.

24. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 2/3, 2005

  
Pat Derby

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

_____	)
IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNIS	)
Secretary of Agriculture	)
	)
Respondent	)
_____	)

**DECLARATION OF CAROL BUCKLEY**

I, Carol Buckley, hereby declare:

1. I am the co-founder of The Elephant Sanctuary in Hohenwald, Tennessee. It was founded in 1995 and is the nation's largest natural habitat refuge developed specifically for the rehabilitation of endangered African and Asian elephants living in captivity. It is a non-profit organization and is licensed by the U.S. Department of Agriculture and the Tennessee Wildlife Resources Agency.

2. The purpose of this sanctuary is to provide rehabilitation for old, sick, or needy captive elephants that have been retired from circuses and zoos in a setting of green pastures, old-growth forests, spring-fed ponds and a heated barn for cold winter nights. The Sanctuary also provides education about the crisis facing these social, sensitive, passionately intense, playful, complex, exceedingly intelligent and endangered creatures.

3. The Elephant Sanctuary encompasses 2,700 acres and provides separate habitats for Asian and African elephants. The African elephant facility consists of 300 acres and the larger Asian facility is 2,400 acres.

4. Regarding a captive elephant's shelter needs, I believe in order to address an elephant's health and well-being each elephant must be given free-choice access to a minimum of 1,000 square feet of personal indoor space and a larger common area to allow for socialization. The floors should be constructed of concrete covered with rubber matting or wood platforms, equipped with radiant heat and pitched to the back for ample drainage. To maintain good hygiene, each elephant should have ample space to ensure that they do not stand or sleep in their own waste.

5. With our current acreage, the Elephant Sanctuary could sustain 50-100 elephants. We currently have eleven elephants in residence at the Sanctuary. Elephants are nomadic creatures, designed to be continually moving. I believe that elephants should, at all times, be given free-choice access to their shelter and habitat. The normal environmental temperature for elephants ranges from 30 to 110 degrees. At the Sanctuary, elephants have the choice to come into the barn on their own.

6. Foot infection is the number one killer of captive elephants. Elephants' feet are not designed to stand for prolonged periods on hard surfaces. They are suited for walking on natural substrate. Elephants walk many miles each day in the wild (30-50 miles). The majority of captive elephants are restricted from walking or freely engaging in normal migratory activities. Life threatening foot infection, which begins with a bruising of the foot pads, is caused by standing on unnaturally hard surfaces such as concrete, limited exercise, and poor foot care.

7. Here is a description of the elephants at this sanctuary who suffered foot and joint problems before coming to the Sanctuary and the improvements they experienced as a result of living at the Sanctuary:

- (a) Tarra performed in circuses and zoos before coming to the Sanctuary. After performing for 21 years, she retired and became the first resident of the Sanctuary. Before coming to the Sanctuary, she suffered from periodic arthritis in her right wrist. I have not seen this condition since her arrival. Tarra is extremely active; walking miles each day, traversing steep hills and swimming in ponds and streams.
- (b) Jenny performed with the circus before coming to the Sanctuary. She arrived with an injury to her knee that was caused by an attack by a bull elephant. She also was severely underweight and had developed chronic foot rot which is life threatening if left untreated. Due to these injuries, Jenny's "owner" could no longer use her in the circus so he dumped her at an animal shelter outside of Las Vegas, NV. Unfortunately, her condition did not improve at her new home where she was exposed to below-freezing temperatures at night and kept in chains due to the inadequate facilities. Her leg injury and foot rot went untreated. The television show, 20/20 did an expose' on captive elephants. Jenny was prominently featured in the story. The footage documented Jenny standing in feces, strikingly underweight, living in dilapidated facilities, and receiving inadequate care from unknowledgeable keepers. Fortunately, Jenny's "owner" allowed her to be transferred to the Sanctuary. Her knee injury is permanent but her strength and ability to walk, run, and play has increased significantly. She is

our most active elephant. She even climbs mountains with her bad knee. Prior to coming to the Sanctuary Jenny's foot pads and nails had become severely overgrown. Now that she is active, she receives minimal to no foot trimmings. Even with her bad knee, the pads and nails wear down evenly. She has benefited greatly from the amount of space the Sanctuary environment provides.

- (c) Shirley performed for 30 years with the circus. Her leg was broken when she was attacked by another elephant. Despite her injury, she had to perform in the circus for almost two more years. Later, she was sold to a zoo where she lived alone for 23 years. Because she was crippled and living alone, the zoo allowed her to retire to the Sanctuary. When she arrived at the Sanctuary, her permanent leg injury caused her to limp and wear her nails and foot pads unevenly. Her skin was dry with layers of dead skin build up on her head and back. She also had several burn scars which she received when the circus ship she was traveling on caught fire and sank. At age 58, Shirley is one of our oldest elephants yet she is very active. She has no problems moving about her environment with the other members of the herd. As result of her activity we do not have to trim Shirley's nails or pads and she appears to have no discomfort in her crippled leg.

- (d) Bunny lived alone in a zoo for 45 years. Due to the hard packed earth in her yard and concrete floor of her barn Bunny suffered from foot infections for nearly 20 years. When Bunny arrived at the Sanctuary her foot pads and nails had been over trimmed causing the pads to be dangerously thin and the nails weak. The first step to recovery was to allow her pads and nails to grow out. She was given twice daily foot soaks (with apple cider vinegar rather than Epson salt; the zoo

industry standard) and homeopathic remedies. Within six months, the foot infections that she had suffered from for 20 years had healed. I believe that getting her off of concrete and onto more yielding natural surfaces not only allowed her feet to recovery but prevented the problem from reoccurring. The Sanctuary environment has reversed a condition that would have eventually cost Bunny her life.

- (e) Over a thirty year period Sissy lived in several zoos, most of that time alone. She came to the Sanctuary after being brutally beaten by her keepers at the El Paso zoo. While at the zoo, Sissy had a chronic split nail, the result of improper foot trimming. After she arrived at the Sanctuary, her split nail was allowed to grow out. Within six months, with proper corrective trimming, her split nail was healed and did not reoccur.
- (f) Winkie lived in a zoo before coming to the Sanctuary. For over 30 years, she was kept indoors, on chains, six months out of the year. She underwent exploratory surgery for a problematic toe in which the vet, suspecting that a foreign object was embedded in the foot, cut her foot to the bone. The surgery was extensive but failed to produce any foreign objects. It was later determined that Winkie's problem was not an object in her foot but an infection in one of the bones of her foot. Due to an antiquated elephant exhibit, a lack of funds to rehabilitate the exhibit, and a request by USDA to improve the exhibit or relocate their elephants, the zoo sent Winkie to the Sanctuary. Upon arrival to the Sanctuary, it was determined that Winkie suffered from osteoarthritis and osteomyelitis (bone infections in her feet). After several months of foot soaks the infection was no

longer active. Winkie favors that foot and exhibits periodic stiffness in both wrists.

(g) Delhi performed in the circus for over fifty years. For the past thirty years, she had been trained and leased to circuses by the Hawthorn Company. In 2003, Delhi became the first elephant ever to be confiscated by the USDA. She had been confiscated because an employee of the Hawthorn Corporation soaked her feet in full strength formaldehyde, causing severe chemical burns. She nearly died from the mistreatment. Delhi arrived at the Sanctuary crippled, her life expectancy was questionable. After several months she began to recover, and after 16 months, she no longer needed hospice care. Although she continues to suffer from osteomyelitis, the disease process has been slowed dramatically; she is extremely active, walking miles each day exploring the habitat. When the weather is good, she spends all day and night outside. Due to her environment and diet, her health is good and the advancement of her osteomyelitis has been slowed considerably.

(h) Zula, Tange and Flora are African elephants. Historically, African elephants do not suffer from the same type of foot problems as their Asian cousins. That is because the African species is designed to live on hard surfaces such as the hard packed earth of an open savanna. Zula and Tange lived in a wild animal park and were moved to the Sanctuary because the director felt that the facilities at the park were not adequate for them. Zula arrived to the Sanctuary with a history of hip problems. After several months of increased activity her range of motion

improved and she is now navigating terrain that she was incapable of navigating in the past.

- (i) Misty was owned by the Hawthorn Corporation and performed in the circus for nearly 40 years before coming to the Sanctuary. She was released to the Sanctuary because she had tested positive for the human strain of tuberculosis. In addition to her contagious disease condition, Misty had severely overgrown nails, unhealthy skin and she was overweight. She was placed in quarantine where she will remain until her treatment is complete.

8. These examples demonstrate that adequate space and conditions are an important requirement for the health of captive elephants. The evidence shows that elephants that come to the Sanctuary with foot problems recover due to the vast amount of space that they have access to as well as improved living conditions which reflect a more natural environment, much like what they would experience in the wild.

9. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and vigorously monitor the health of elephants at zoos. When the agency finds that elephants shows signs of atypical behavior, osteomyelitis, osteoarthritis and other health hazards resulting from inadequate space, confinement, and harsh living conditions, USDA must require that the zoo either increase the available space and improve conditions to address the health of the elephant or move the elephant from the zoo to an environment, such as a Sanctuary, where the elephant's health can improve.

10. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: May 3, 2005

Carol Buckley  
Carol Buckley

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNNS	)
Secretary of Agriculture	)
	)
Responder t	)

**DECLARATION OF HENRY MELVYN RICHARDSON, DVM**

I, Henry Melvyn Richardson, DVM, hereby declare:

1. I have over 36-years of experience working with elephants and other animals. For the past 23 years, I have been a veterinarian working with exhibited animals, wildlife, and domestic animals.

2. I was a staff veterinarian at the San Antonio Zoo, Woodland Park Zoo, and the International Animal Exchange (IAE). At IAE, I administered veterinary care to over 2,500 exotic animals housed at The International Wildlife Park in Grand Prairie, Texas. I also represented and consulted for IAE to clients in Colombia, SA; Taipei, Taiwan; and Seoul, S. Korea.

3. On January 4, 2006, I was asked by In Defense of Animals (IDA) as well as Friends of Toni to visit the National Zoo and meet with John Berry, the zoo's new director concerning the condition of Toni, their 40 year old Asian elephant (*Elephas maximus*). There

has been some growing concern over Toni's debilitating condition and IDA wanted my professional opinion and evaluation of her present physical state.

4. IDA and Friends of Toni are asking the National Zoo to send Toni to the Elephant Sanctuary (TES) in Hohenwald, TN which I visited on January 3<sup>rd</sup> en route to Washington, D.C.

5. When I saw Toni on January 4<sup>th</sup>, 2006, I was appalled. I have never seen an elephant in such a debilitated condition. Toni is an elephant at least 2,000 pounds underweight with an almost contorted posture. She moved carefully, placing each foot with deliberation and consideration as to its position. She tried not to put much weight on each step, as if walking on eggs. All the while she was leaning back onto her rear quarters, obviously keeping weight off of her front legs. Her spine looked curved and her pelvis was twisted. The fact that I could see her spine, shoulder blades, and hip bones was beyond belief. I had expected her to be in poor shape, but this was more than I could have ever imagined.

6. After visiting Toni at her exhibit, Joyce Poole, PHD, Petter Granli (both with Amboseli Elephant Research Project), Suzanne Roy (In Defense of Animals), Amy Mayers (Friends of Toni) and I met with John Berry, the director of the National Zoo. We all expressed our concern for Toni's condition. I told Mr. Berry that I believed Toni was suffering and if I were his veterinarian, I would be discussing euthanasia with him to end her pain.

7. We discussed the option of sending Toni to The Elephant Sanctuary (TES). I expressed my feeling that Toni may not be able to survive the move to Tennessee and the Sanctuary; but that Carol Buckley of TES would be the better judge of that due to her experience moving debilitated elephants. If Carol felt after evaluating Toni that she could be moved, then I would support it. Mr. Berry assured all of us that Toni was receiving the best care possible at the National Zoo. He explained her condition was due to her old leg injury at Scranton Zoo and her

weight loss was due to her being just a picky eater. When I watched Toni in her exhibit she appeared to relish her bamboo, which was obviously placed in the yard to draw her out.

8. He explained that the other elephants were thriving in the exhibit. I informed Mr. Berry that Ambika was also being treated with ibuprofen according to the medical records. He was unaware of that. We ended the meeting with Mr. Berry assuring us that Toni was receiving excellent care. He articulated The National Zoo's commitment to continue to exhibit and breed elephants.

9. Mr. Berry's statement that Toni's condition is due entirely to her left forelimb injury at Scranton appears at odds with current scientific knowledge of elephants. He even stated that her twisted stance was in compensation for this injury. Elephants in the wild have sustained fractured legs and even ankylosed carpal joints, like Toni. They have been seen to recuperate and go on to live almost normal elephant lives, albeit with a limp. Had Toni had access to an adequate environment with enough space to roam and a natural substrate, I am certain that she could have better dealt with her injury and would not be in such a condition as today. Toni's exhibit only allowed for exacerbation of her injury. Lack of exercise caused muscle atrophy, removing the muscular support needed to sustain healthy joints and standing on concrete increased the trauma to joint surfaces initiating degenerative joint disease while walking on sand literally rubbed down her pads, thinning her soles and increasing her pain. We will never know for sure; but I believe if Toni had been sent to a sanctuary when she left Scranton, she would not be suffering today.

10. In December 2005, I was given access to Toni's medical records, as well as the records of the other elephants at the National Zoo. I was painfully aware of her medical problems: her chronic arthritis in her left forelimb caused by an old injury at the Scranton Zoo in

Pennsylvania; her chronic arthritis in her right forelimb caused by shifting her weight onto the 'good' leg attempting to alleviate the pain in the left limb; chronic infected tusk sulcus (socket); chronic weight loss and inability to regain weight; hematuria (blood in urine) due to renal papillary necrosis or pyelonephritis (kidney infection). The records run from January 2000 until early November 2005. The records show that there is a trend of a chronically declining health picture. On December 10, 2000, she was noted to be thin and her body weight was 5850 pounds, her lowest weight since 1996. The last weight that I have for her was on Nov 7, 2005 and she had dropped to 5740.4 pounds. The average weight for an Asian elephant cow is 7000 to 8000 pounds.

11. Prior to Toni's episode of hematuria in March of 2001, she had been on ibuprofen daily since 1997. One would assume for arthritis pain in her legs. The records are not clear. What is clear is the use of ibuprofen. This information is significant because ibuprofen is not commonly used in domestic animals at all due to its toxic effects. From examining the records, I am convinced that the hematuria seen and treated as a kidney infection was in fact ibuprofen toxicity. The animal health staff must have strongly suspected this at the time because they immediately discontinued the ibuprofen when blood was found in her urine.

12. On July 3, 2005, the records note that she was lame and leaning on the bars. She was reluctant to go down in sternal position (on her chest and belly with legs tucked). The veterinarian records state, "Spoke with curator TB at home on telephone and discussed options, including starting NSAID with possible risk of renal damage." The obvious question is why would the veterinary staff intentionally place an animal on a medication which may cause kidney failure? The answer is probably because she was and is in a great deal of pain. As early as July, she was seen standing in a posture attempting to alleviate her weight from her front legs. The

records indicate this very stance as well by stating that her weight is shifted to her rear end, front legs extended forward resting on her front heels. I have also seen pictures taken of her in September that show her standing with her weight shifted to the rear legs as well.

13. The First North American Conference on Elephant Foot Care and Pathology was held in Beaverton, Oregon, March, 1998. The publication, The Elephant's Foot, Prevention and Care of Foot Conditions in Captive Asian and African Elephants, (Blair Csuti, et al., eds., 2001) resulted from that meeting. In the introduction it states that "Foot problems are seen in 50 percent of captive Asian and African elephants at some time in their lives...may result in serious disability and death." (Id. at vii). It goes on to state "There is a general consensus that lack of exercise, long hours standing on hard substrates, and contamination resulting from standing in their own excreta are major contributors to elephant foot problems . . . All contributors [to the meeting] also agree that prevention of foot problems is preferable to treatment." (Id.). It is important to keep in mind that elephant "foot problems" over time will lead to debilitating arthritis and degenerative joint disease, and vice versa.

14. Whenever possible, we as veterinarians are trained to prevent pain and suffering, not just treat it. The question here is why are the veterinarians at the National Zoo not preventing the painful degenerative arthritis in their elephants like Toni and Ambika? The answer is that they cannot because the cause of the crippling degenerative joint disease is the exhibit itself: the concrete; the packed unyielding abrasive substrate inside and outside; the lack of exercise and normal use of the elephants feet and limbs – climbing, digging, walking, wading into streams, kicking logs, and foraging. Some zoo professionals have gone on record saying elephants are basically lazy and if their food is placed in front of them they will not exercise.

This statement not only applies to elephants, but also to most of the American public, myself included.

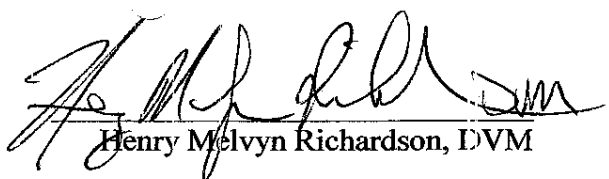
15. The main point that should not be ignored is that elephants have evolved to travel many miles each day on uneven natural substrate using their feet to find and apprehend food. To keep them healthy we must provide that opportunity as well. The zoo exhibit itself is the cause of the degenerative joint disease. The zoo exhibit itself is killing her. I believe that treating elephants such as Toni and Ambika at the National Zoo with long term, high dose NSAID, in an effort to control their pain, is contributing to their agony, not alleviating it.

16. My professional assessment of Toni is that she is suffering. If The Elephant Sanctuary will accept her, then I believe she should be moved there as soon as possible. Furthermore, if The National Zoo cannot provide appropriate habitat for their other elephants, then they should not have elephants at all.

17. In conclusion, I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA should be spearheading the effort to educate zoos on what is inadequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor the health of elephants at zoos. When the agency finds that elephants are not healthy due to inadequate space and conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal or move the elephant from the zoo to an environment, such as a sanctuary, where the elephant's health can improve.

18. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: January 25<sup>th</sup>, 2006

  
Henry Melvyn Richardson, DVM

**CITIZEN PETITION BEFORE THE  
UNITED STATES DEPARTMENT OF AGRICULTURE**

IN DEFENSE OF ANIMALS	)
	)
Petitioner,	)
	)
v.	)
	)
MIKE JOHANNNS	)
Secretary of Agriculture	)
	)
Respondent	)

**DECLARATION OF JOYCE POOLE**

I, Dr. Joyce Poole, hereby declare:

1. I have studied the behaviour of African elephants and worked for their conservation and welfare since 1975.

2. I studied elephants in Amboseli National Park as a member of the Amboseli Elephant Research Project ("AERP") as an undergraduate research assistant between 1975 and 1979 and as a doctoral candidate at Cambridge University from 1980-1982.

3. Between 1984-1989 I was a postdoctoral research fellow of Princeton University studying elephant behaviour and communication in Amboseli.

4. In 1989 I carried out surveys on the impact of ivory poaching on the age structure and reproductive patterns of four East African elephant populations (Amboseli,



Tsavo, Queen Elizabeth and Mikumi) for a report to Convention on International Trade in Endangered Species (CITES).

5. In 1989 I co-authored the successful Tanzanian proposal to CITES to move the African elephant from Appendix II to Appendix I of the Convention.

6. I worked as Elephant Programme Coordinator for Kenya Wildlife Service between 1990-1994, where I was responsible for the conservation and management of the country's 25,000 elephants and for training a team of 11 Kenyan graduates.

7. Since 1998 I have studied the communication and social behaviour of elephants in the Laikipia, Mara and Amboseli populations. Since 1975 I have been a member of the AERP, since 2000 I have been a Director of ElephantVoices and since 2002 I have been the Director of Research of AERP.

8. I have observed Asian elephants in the wild in India and in Sri Lanka including recording their vocalizations and behaviour.

9. I am on the Scientific Advisory Board of the Captive Elephant Management Coalition, I am on the Scientific Advisory Panel for the Amboseli Trust for Elephants and I am a member of Ethologists for the Ethical treatment of Animals.

10. I have visited numerous captive elephant sites including zoos in Europe and the United States (eg. Disney's Wild Kingdom, National Zoo, Bronx Zoo, Minneapolis Zoo, Portland Zoo, London Zoo, Oakland Zoo, the Lincoln Park Zoo and the Brookfield Zoo).



11. In August 2005 I testified in Chicago at a City Council hearing regarding the proposed Elephant Protection Ordinance that proposes to increase the space allotted for elephants in the city of Chicago.

12. I have taken elephant back safaris in Botswana and in India; I have observed working, tourist, ceremonial and temple elephants in India. I have visited and recorded the vocalizations of elephants at orphanages in Kenya and in Sri Lanka; I have visited and closely observed the behaviour of the captured Tuli infants in South Africa. I have watched numerous hours of film material depicting the behaviour of captive elephants.

13. A copy of my curriculum vitae, which includes my educational background, is included with this affidavit.

14. In Amboseli, where I have worked since 1975, elephants roam, walking, moving while feeding or interacting, for almost three quarters of every 24-hour day, only stopping to stand and rest, or lie down, for a couple of hours.

15. In Amboseli, elephants inhabit what is regarded as a relatively small area for wild elephants. Members of this elephant population range over approximately 5,000km<sup>2</sup>. Each elephant and its family have a core area of use encompassing at least 194km<sup>2</sup>. Elephants travel 8 to 20 kilometres a day, frequently walking further in areas of lower resource availability, or when a male is searching for females. Figures for Asian elephants are similar with home ranges averaging 350 km<sup>2</sup> for males and 100 to 115km<sup>2</sup> for females and daily movements ranging between 8 to 22 km.

16. Zoos often argue that elephants only cover these distances to search for food, water, to find mates and to avoid predators. They also say that when food is readily



available to them they do not walk so far. While it is true that elephants walk straight lines when moving from point A to point B, and that they will cover less area in habitats with high resource availability, it is a fallacy to argue that because elephants have food, water, security and semen presented "on a plate" or "in a tube" in captivity they, therefore, don't need more than 2,200 sq ft of space. This is the amount that the American Zoo and Aquarium Association (AZA) currently recommend.

17. The AZA and other members of the zoo community maintain that there is no scientific evidence that elephants require ample space in captivity and suggest that elephants only move in the wild because they have to. I am stunned by this conclusion because the empirical evidence consistently shows that elephants need much more space than what is currently allotted to them in zoo settings.

18. Elephants in zoos currently face numerous health, reproductive and behavioral problems requiring enormous costs and frequent interventions for veterinary treatment, hormone sampling, electro-ejaculation and artificial insemination. In the form of the routine problems that captive elephant managers face every day, the empirical evidence that elephants need more space is unmistakable: foot diseases, arthritis, weight related diseases, infertility, heightened aggression, and other neurotic behavior to name but a few.

19. Based upon many years of field research, it is my professional opinion that wild elephants do not suffer the same ailments, such as foot disease, arthritis, and weight related diseases, as elephants in captivity. By comparison, in Amboseli, where the life histories of over 2,000 free-ranging elephants have been followed for 34 years and where elephants grow up in a nurturing social environment, have the freedom to move, and



autonomy over their own lives, elephants do not develop foot or weight problems as they do in zoos.

20. Of the 2,200 elephants that have lived in Amboseli over 34 years of study, not one has had foot (other than those inflicted by humans), arthritis, or problems with overweight.

21. In over 34,000 sightings of groups containing 1 to 550 elephants, not one elephant has been seen swaying rhythmically back and forth or showing other neurotic behaviour ultimately caused by lack of space.

22. At Amboseli we have only recorded two cases of infertility out of 558 females over 10 years old.

23. Out of 1,500 recorded elephant births at Amboseli, there has not been a single incident of an elephant killing its own infant. There have been no incidents of elephants attacking or killing the individuals with whom they are closely bonded.

24. In captivity, confined in small spaces, under the constant command of a trainer and kept in socially deprived conditions, elephants become dysfunctional, unhealthy, depressed, and aggressive. Inactivity leads not only to obesity, but also to foot diseases, joint problems, and arthritis. Female zoo elephants are 31-72% heavier than their wild counterparts.

25. Infertility, maternal rejection, maternal infanticide, high infant mortality, hyper-aggression are all common problems in captivity. Degraded by a life of tension and punishment, many captive elephants have inflicted deliberate injury and even death on elephant keepers.



27. The absurdity of members of the AZA's consistent argument regarding space is apparent when it is applied to humans. By AZA standards, a person, (being approximately 2% the weight of an elephant), would lead a healthy life living in 44 sq ft, if provided with food, water and breeding partners.

28. The 39-year old Asian elephant named Toni at the Smithsonian Institution's National Zoological Park (National Zoo) is a clear example of how intense zoo confinement can cause severe health problems for an elephant.

29. On January 4, 2006, I visited the zoo and observed Toni in her exhibit. The National Zoo's elephants are all Asian elephants, a species that inhabits forest and forest-edge habitats in its natural environment. The National Zoo's barren exhibit couldn't be further from tropical forest; rather the exhibit is striking in its bleak desert-like condition.

30. Prior to visiting the zoo, I was informed that 39-year-old Toni had severe arthritis, but I was not prepared for what I witnessed at the enclosure. In all my 30 years of observing wild elephants, I have never seen an elephant as crippled as Toni.

31. Almost 20 years ago, at the Scranton Zoo, Toni suffered a broken left ankle. Years of standing on concrete floors and compacted sandy soil in a small enclosure, with little exercise have exacerbated this injury, for she is now almost unable to walk. Toni shuffles along, only centimeters at a step, with her weight shifted onto her hind legs. It appears that she has compensated the pain and arthritis in her left front ankle by trying to shift her weight to her hind legs, thus giving relief to her injured front leg. Over the years of shifting her weight, the muscles on Toni's left side have atrophied, and



the curvature of her spine and pelvis appear deformed (Pictures are attached). Toni is extremely thin and zoo records document that she continues to lose weight.

32. The zoo is blaming Toni's condition on an old leg injury, but based on my professional opinion and expertise in this area, I disagree with this assessment. I have seen a substantial number of elephants with broken and/or withered legs in the wild, all able to move and keep up with their families, either by putting weight on the injured leg, and walking with a limp, or by hobbling along on three legs. One Amboseli female elephant, 43-year-old Xala, has lived with a left ankle break (similar to Toni's) since the first day she was seen on December 5, 1973. Xala (photograph attached) is still a healthy, vigorous female, who is able to keep up with her family, reproduce and successfully raise offspring.

33. Toni is unable to move like Xala. I believe that Toni's debilitating condition is caused by much more than an old leg injury. Her condition is indicative of many of the problems experienced by captive elephants and symbolizes the dismal consequences of long-term lack of space and movement. Unfortunately, Toni is yet one more statistic, adding to the overwhelming amount of empirical evidence, showing that elephants *do* need sufficient space and social and environmental enrichment to maintain agility and good physical health. We can only speculate about the inner emotional trauma this elephant has experienced in her life by suffering with severe pain on a daily basis.

34. The evidence shows that providing elephants with living conditions that consist of only a few acres with hard surfaces does not meet their needs. By keeping Toni on hard surfaces and within a small space, the National Zoo has severely



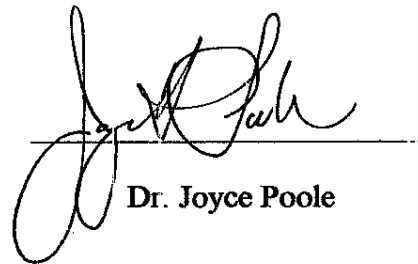
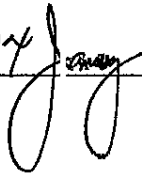
contributed to Toni's deteriorating health and thus, this zoo cannot escape responsibility for Toni's condition.

35. My long-term behavioral research on wild elephants indicates that these large, highly social and intelligent animals require ample, environmentally complex space, and a sufficient number of other elephants for social contact and learning.

36. I agree that USDA needs to clarify its Animal Welfare Regulations requiring adequate space and conditions for elephants. USDA should be spearheading the effort to educate zoos on what is inadequate space and conditions for elephants. USDA also needs to regularly and consistently inspect and monitor the health of elephants at zoos. When the agency finds that elephants are not healthy due to inadequate space and conditions, USDA needs to require the zoo to either alter the space and conditions to improve the health of the animal or move the elephant from the zoo to an environment, such as a sanctuary, where the elephant's health can improve.

37. In accordance with 28 U.S.C. § 1746, I declare under penalty of perjury that the foregoing is true and correct.

Executed on: 24 January, 2006



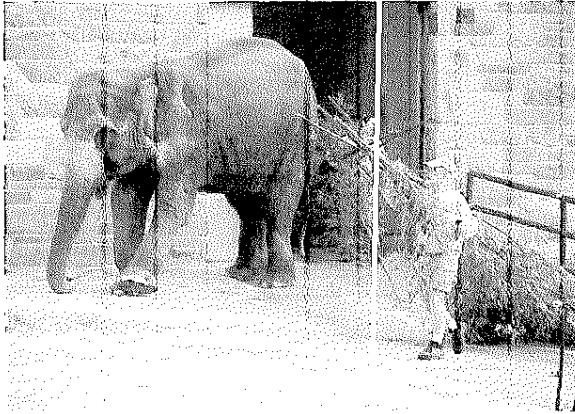
Dr. Joyce Poole



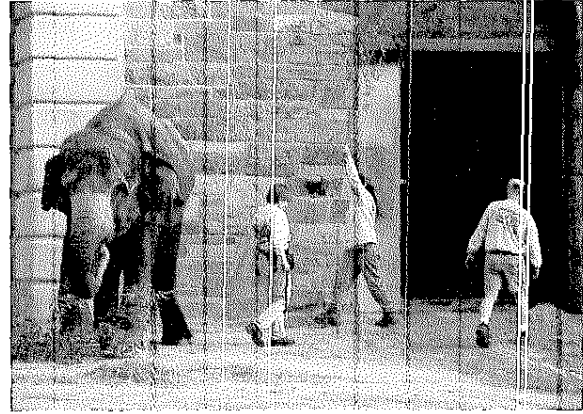
**Figure 1. Note Toni's deformed left ankle.**



**Figure 2. Toni stands with her weight shifted back. Note her outstretched front legs.**



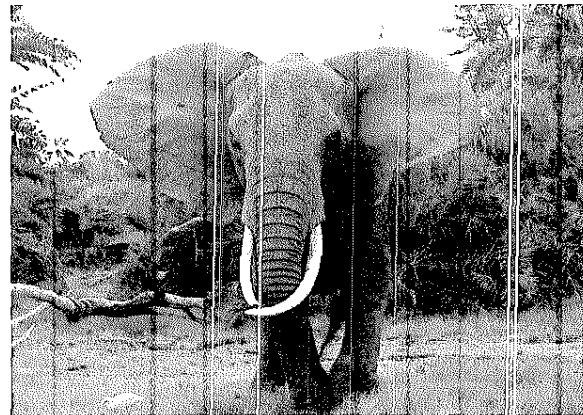
**Figure 3. Note atrophied muscle on left side.**



**Figure 4. Toni is emaciated.**



**Figure 5. The National Zoo's elephant enclosure.**



**Figure 6. Xala, a healthy, vigorous female, illustrating left ankle break.**

## CURRICULUM VITAE JOYCE POOLE

### PERSONAL

Name Joyce Hatneway Poole  
 Address Buskhellir ga 3, 3236 Sandefjord, NORWAY  
 Telephone (47) 33478817  
 e-mail [jpoole@acarp.org](mailto:jpoole@acarp.org) website: [www.ElephantVoices.org](http://www.ElephantVoices.org)  
 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 press. 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 *Ethica & Animalia*. 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 and 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 Bambra (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, K. Kumange, 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 Resources 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 33<sup>rd</sup> 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.