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# Captive elephant population in the world: 1988-1999, and notes on other captive elephants elsewhere in the world

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# Captive elephant population in the world: 1988-1999, and notes on other captive elephants elsewhere in the world

## **Cover Page Footnote**

We are greatly indebted to all institutions and owners who have sent us information to be included in this compilation. We also wish to acknowledge the following individuals who have provided us with data: Don Bloomer, Richard Chiger, John Crowley, Blair Csuti, Michael Dee, Laurie Dimeo-Ediger, the Elephant Listserver, Leslie Eufrazio, Linda Gardiner, Charles Gray, Thomas P. Hayes, Jr., Sandra Henderson, Murray Hill, Elizabeth Hooten, Wayne Jackson, Gary Johnson, Michael Keele, Sonya Kindya, Colleen Kinzley, Dan Koehl, Jerry Kucera, Laurie Lackey, Don Marcks, Susan Mikota, Randy Moore, Raymond (Sabu) Moreau, Manuel Phelps, Don Redfox, Russ Roach, Eva Sargent, Jurgen Schilfarth, Jim Small, Bucky Steele, Toby Styles, Gordon Taylor, Amelia Terkel, Willie Theison, Roy Wells, and Buckles Woodcock.

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**CAPTIVE ELEPHANT POPULATION IN THE WORLD: 1988 — 1999,  
AND NOTES ON OTHER CAPTIVE ELEPHANTS ELSEWHERE IN THE WORLD**

compiled by Sandra Lee Shoshani

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Tables 1 through 4 include summaries of estimates for captive elephant population in the world, organized by estimates for North America (Tables 1 and 2), for the world (Table 3), and detailed tabulation for North America (Table 4). The purpose of Table 4 (given on the following pages) is threefold: [1] to provide a chronological listing for purposes of analysis; [2] to inform our readers of births and deaths of elephants so that elephant owners and others may contact each other for particular information or advice; [3] and to include the names of elephants for the sake of not repeating elephant names. Record keeping has been especially difficult because of the frequency of certain names and leasing of animals. It would benefit future breeding programs if owners would retain records of original names and refer to these when censuses are taken. Also, it is important for census takers to specify owners of animals and their ages in order to keep distinct entries.

Note that Table 4 started with the first birth of a captive African elephant in 1978 in North America since the first recorded birth of a captive Asian elephant in the USA was on April 3, 1880 [see Elephant, 1(4):237]. The first part of this table was prepared by Lash (1982), and was continued in 1986 Lash (1986), and in 1987 Lash (1987). Some deaths prior to 1987 were not recorded in the previous publications and have therefore been added here.

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**Table 1.** Summary of captive elephants in most North American zoos and private institutions (including many circuses) as of December 31, 1999, based on totals reported in Keele *et al.* (1997) and Olson (1997).

	<u>USA</u>	<u>Canada</u>	<u>Total</u>
African elephants	249 (31M, 218F)	19 (2M, 17F)	268 (33M, 235F)
Asian elephants	264 (42M, 222F)	19 (5M, 14F)	283 (47M, 236F)
Totals:	513 (73M, 440F) <sup>a</sup>	38 (7M, 31F)	551 (80M, 471F) <sup>b</sup>

[a]. M=Male, F=Female

[b]. Of these 551, 80 Asians and 22 Africans were reported captive-born in North America. 2.9 Asians were imported into North America and 3.0 Asians and 0.1 Africans were exported since January 1987. NOTE: a shorthand formula to write numbers of male and female elephants is to write the number of males first, followed by a period (.) then by the number of females.

**Table 2.** Summary of additional known numbers of elephants in North America, as collected by Don Marcks, Manuel Phelps and Sandra Shoshani, as of December 31, 1999.

	<u>USA</u>	<u>Canada</u>	<u>Total</u>
African elephants	1 ( 1M, 0F)	0 (0M, 0F)	1 (1M, 0F)
Asian elephants	43 ( 2M, 41F)	0 (0M, 0F)	43 (2M, 41F)
Totals:	44 ( 3M, 41F) <sup>a</sup>	0 (0M, 0F)	44 (3M, 41F)
<b>Totals for Tables 1 and 2:</b>	557 (75M, 482F)	38 (7M, 31F)	595 (83M, 512F)

[a]. M=Male, F=Female

Table 3. Summary of world captive population, estimated December 1999.

	<u>Asian elephants</u>	<u>African elephants</u>	<u>Totals</u>
Africa [a]	7-10	20-30	27-40
Asia (not including Japan) [b]	13,325 - 16,495	55-105	13,380-16,600
Australia and New Zealand [c]	7 (3M, 4F)	6 (1M, 5F)	13
Central and South America, including Mexico [d]	15 (4M, 10F + 1?)	14 (5M, 8F + 1?)	29
Europe, including Great Britain, Israel and Russia [e]	509 (54M, 452F) [sex of 3 unspecified]	317 (41M, 273F) [sex of 3 unspecified]	826
Japan [f]	70	67	137
North America [g]	326	269	595
<b>TOTALS</b>	<b>14,259-17,432</b>	<b>748-808</b>	<b>15,007-18,240</b>

[a]. After C. Dale Tuttle (1992), page 192.

[b]. After J. C. Daniel (1992), page 177.

[c]. After Leslie Eufrazio, Linda Gardiner, Sandra Henderson, and Wayne Jackson [via the Elephant Listserv, October 1999].

[d]. After Anita Schanberger (1997), page 5.

[e]. Based on figures provided by Jurgen Schilfarth for the European Elephant Group (1993), with updates in Journal of the Elephant Managers Association for the years 1996 through 1999.

[f]. After C. Dale Tuttle (1992), page 187.

[g]. See above, TOTALS from Table 1 and 2.

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Table 4

**Table 4. CAPTIVE ELEPHANTS 1988-1999 and additions to 1980-1988 records for Elephant Vol. 2 No. 4 [a]**  
**Known births and deaths among captive elephants in North America since 1980, arranged by genus and chronologically**  
 compiled by Sandra L. Shoshani (December 31, 1999)

**Part I. African elephant (*Loxodonta africana*)**

Birth/ death	Date [b]	Sex [c]	Name	Sire (age)/Dam (age) or age of death and cause [d]	Institution at time of birth or death [e]
death	??.1984	F	Sage	14; euthanized: broken leg	Los Angeles Zoo, Los Angeles, California
death	?I.1988	M	Samson ( <i>L. a. cyclotis</i> )	18; acute pneumonia	Randall Moore, Republic of South Africa (purchased from African Lion Safari, Cambridge, Ontario, Canada)
death	??.1985	F	Simone (Mary)	16 or 19; undetermined after necropsy	Parc Safari Africain, Hemmingford, Quebec, Canada
death	15.II.1988	M	Big Boy	18; euthanized: musculoskeletal abnormalities	Knoxville Zoo, Knoxville, Tennessee
death	31.III.1988	F	Twiggy	10; undetermined cause	Utah's Hogle Zoo, Salt Lake City, Utah
death	04.V.1988	F	Tanya (China)	24; euthanized: musculoskeletal abnormality	Gladys Porter Zoo, Brownsville, Texas
death	Summer 1988	F	Suzy	?10; malnutrition, dehydration, salmonella	impounded by Fairfax City, Virginia, from the "Wonder Zoo"
death	??.1988	M	Butch	2; undetermined cause	John Carnes, Bulverde, Texas
death	11.II.1989	F	Vicky	20; euthanized (?vitamin E deficiency)	Denver Zoo, Denver, Colorado
death	18.III.1989	F	Mojo	19; undetermined after necropsy	Kings Island Wild Animal Safari, Kings Island, Ohio
death	02.VIII.1989	M	Tantor	21; complications following tusk surgery	Metro Toronto Zoo, Toronto, Ontario, Canada
death	Summer 1989	M	Tonka	7; ?viral infection	Donnie Johnson, Seagoville, Texas
death	15.VI.1990	F	Jojo	24; death under anesthesia; undetermined cause	Lion Country Safari, West Palm Beach, Florida
death	08.VII.1990	F	Patty	21; undetermined	Six Flags Great Adventure Park, New Jersey
death	31.VII.1990	F	Peanuts	20; drowned, weakened by vasculities & numerous bilestones	North Carolina Zoological Park, Asheboro, NC (on loan from Stoneham, Massachusetts)
death	?VII.1990	F	Nora	8; trauma: injured by another elephant	Black Beauty Ranch, Murchison, Texas
death	04.VIII.1990	F	Root	21; trauma: injured by another elephant	Parc Safari Africain, Hemmingford, Quebec, Canada
death	Summer 1990	M	Toto	?20; secondary infections following surgical castration	William Buckles Woodcock, Ruskin, Florida
death	?X.1990	F	Tanish	19; undetermined cause	Beatty Cole Circus, DeLand, Florida
death	09.X.1990	F	Tinker	12; degenerative disease of brain and spinal chord	North Carolina Zoological Park, Asheboro, NC
death	31.VII.1991	F	Kutenga	27; collapsed (degenerative disease of injured leg), shattered bones	Philadelphia Zoological Garden, Philadelphia, PA
death	01.VIII.1991	F	Dina	?; ?salmonella	Donnie Johnson, Seagoville, Texas
death	15.VIII.1991	F	Gypsy	23; renal failure/infection	Kings Dominion Wild Animal Park, Ashland, Virginia
death	02.XI.1991	F	Moja	12; encephalomyocarditis virus	Dallas Zoo, Dallas, Texas
death	05.XI.1991	F	Ellie Mae	6; viral infection	Audubon Park Zoo, New Orleans, Louisiana
death	10.XI.1991	M	Bud (Cosi) [f] ( <i>L. a. cyclotis</i> )	20; cecal colic intussusception, pneumonia	Columbus Zoo, Powell, Ohio
death	?III.1992	M	Ahmed	severe diarrhea/undetermined cause	Abilene Zoo, Abilene, Texas
death	20.III.1992	M	Hannibal	14; death under anesthesia during move to Mexico	from Los Angeles Zoo, Los Angeles, California
death	09.IV.1992	F	Shapi	23; torsion	San Diego Wild Animal Park, Escondido, California

Table 4 – continued

death	11.VI.1992	F	Mtoto	22; euthanized: severe arthritis	Brookfield Zoo, Brookfield, Illinois
death	26.IX.1992	F	Elka (Elke)	33; undetermined cause after necropsy	Kings Island Wild Animal Safari, Kings Island, Ohio
death	05.XI.1992	M	Joe	22; ruptured cecum due to rock/sand impaction	Druid Park Zoo, Baltimore, Maryland
death	25.III.1993	F	Juju	25; viral infection of cardiovascular system	Gladys Porter Zoo, Brownsville, Texas
death	08.VI.1993	F	Muddog	25; urinary infection	Kings Dominion, Asheboro, Virginia
death	04.XII.1993	F	Peggy	13; bacterial infection	Mesker Park Zoo, Evansville, Indiana
death	?.?.1993	F	Aggie	22; undetermined cause	Craig Perry, Walker, Iowa
death	?.?.1993	M	Ted	5/6; ?broken leg	Double M Ranch, Hastings, New York
death	Winter 1993-4	F	Ginnie	? ; ?	William (Buckles) Woodcock, Ruskin, Florida
death	27.XII.1993	M	Tsavo	6; undetermined cause	Zoomotion Elephants, Uxbridge, Massachusetts
death	18.VII.1994	F	Mona	24; died in transit from Kings Island, Ohio, to	Kansas City Zoo, Kansas City, Missouri
birth	16.III.1994	?F	unnamed	Machito (14)/Tribby (15) (breeding took place at Miami Metro Zoo)	Cleveland Metroparks Zoological Park, Cleveland, OH (female owned by Pittsburgh Zoo, Pennsylvania)
death	17.III.1994	?F	unnamed	1 day; ruptured hernia	Cleveland Metroparks Zoological Park, Cleveland, OH
death	12.V.1994	F	Targa	25; infection of digestive system	Great Adventure Safari Park, Jackson, New Jersey
death	30.V.1994	F	Teela	16; bacterial infection of digestive system	North Carolina Zoological Park, Asheboro, NC
death	09.VI.1994	F	Vaal	22; undetermined cause	Druid Park Zoo, Baltimore, Maryland
death	05.VII.1994	F	Toronto	10; salmonella poisoning (captive-born)	MetroToronto Zoo, Toronto, Ontario, Canada
death	13.VII.1994.	F	Shanti (Kati)	15; euthanized: bacterial infection	Erie Zoological Park, Erie, Pennsylvania
death	20.VIII.1994	F	Tyke	20; euthanized/shot	Hawthorn Corporation, Grayslake, Illinois
death	15.X.1994	M	Tanga	18; euthanized: arthritis in legs	Wildlife Safari, Winston, Oregon
death	25.X.1994	M	Jessie	14; euthanized: ?undiagnosed illness (from Circus Vargas - surgically castrated 1987)	Riddle's Elephant Breeding Farm, Greenbrier, Arkansas
death	12.XI.1994	M	Perkins (Billy)	24; infection	Henry Dorly Zoo, Omaha, Nebraska
death	12.XII.1994	M	Diamond	13; euthanized: ?unknown illness (captive-born at Lion Country Safari, CA)	Riddle's Elephant Breeding Farm, Greenbrier, Arkansas (surgically castrated in 1978 for Circus Vargas)
death	16.XII.1994	M	Morgan (Fanti)	15; had parasites, an infected tusk socket, badly deformed teeth (died) (captive-born at Gladys Porter Zoo, Brownsville, TX)	Riddle's Elephant Breeding Farm, Greenbrier, Arkansas
death	20.XII.1994	F	Loran (Tembo)	15; torsion	Toledo Zoological Park, Toledo, Ohio
birth	03.XI.1995	M	Kijana	Smokey (22)/Lisa (18)	Oakland Zoo in Knowland Park, Oakland, California
death	10.XI.1995	F	Simba	42; undetermined, after surgery	Cleveland Metroparks Zoo, Cleveland, Ohio
death	11.XI.1995	F	Tribby	18; infection associated with pregnancy	Cleveland Metroparks Zoo, Cleveland, Ohio
birth	21.XI.1995	M	unnamed	Smokey (22)/Donna (Eloise) (15)	Oakland Zoo in Knowland Park, Oakland, California
death	21.XI.1995	M	unnamed	newborn euthanized: musculoskeletal problems	Oakland Zoo in Knowland Park, Oakland, California
death	?.I.1996	F	Tia	14; trauma: injured by another elephant	Karl Mogenson, Natural Bridge, Virginia
death	03.III.1996	F	Mugsy	13; chronic pneumonia (died after exploratory examination of trunk and trachea)	Riddle's Elephant Breeding Farm, Greenbrier, Arkansas
death	10.III.1996	F	Bisi	23; cardiovascular trauma of undetermined cause	Cameron Park Zoo, Waco, Texas
death	05.V.1996	F	Tia	34; undetermined cause	Rio Grande Zoological Park, Albuquerque, New Mexico
death	07.X.1996	M	Kijana	11 mths; endotheliotropic herpesvirus infection	Oakland Zoo in Knowland Park, Oakland, California
death	01.XI.1996	F	Toni	14; undetermined cause	Carson & Barnes Circus, Hugo, Oklahoma
death	15.I.1997	F	Kenya	23; euthanized: respiratory infection	IESF, Pete Luvas, Kountze, Texas [g]
death	24.III.1997	F	Sabu	37; undetermined cause after necropsy	San Diego Wild Animal Park, Escondido, California
death	06.VIII.1997	F	Heather	9; salmonella colitis	King Royal Circus (John Davenport), Von Ormy, Texas

Table 4 - continued

death	01.XII.1997	F	Alice	27; trauma: injured by another elephant	Wildlife Safari, Winston, Orgeon
death	?26.III.1998	M	unnamed	Smokey (25)/Lisa (11); following salmonella	Oakland Zoo in Knowland Park, Oakland, California
<i>in utero</i>	(assumed date)			infection of dam during pregnancy progesterone dropped dramatically; discharge continues to date	
death	Fall 1998	?	unnamed	Smokey (25)/Donna (Eloise) (18); following salmonella infection of dam during pregnancy	Oakland Zoo in Knowland Park, Oakland, California
<i>in utero</i>					
stillborn	22.IV.1999	?	unnamed	Jackson (Jack) (18/19)/Savana (16)	Pittsburgh Zoo, Pittsburgh, Pennsylvania
birth	12.IX.1999	F	Victoria	Jackson (Jack) (19/20)/Moja (Margo) (17) (dam captive-born at San Diego Wild Animal Park, Escondido, California)	Pittsburgh Zoo, Pittsburgh, Pennsylvania [h]
<b>Part II. Asian elephant (<i>Elephas maximus</i>)</b>					
*death	17.V.1983	F	Shani (captive-born)	26 days; endotheliotropic herpesvirus infection	Houston Zoological Gardens, Houston, Texas
birth	17.I. 1988	M	Rajah	Vance (Matt) (25)/Mala (22)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	22.VI.1988	F	Susie	32; undetermined cause	Metro Washington Park Zoo, Portland, Oregon
death	26.VIII.1988	M	Beau Thai (Bopper)	4; ?heart lesions	African Lion Safari, Cambridge, Ontario, Canada
death	31.VIII.1988	F	Lilly	late 30's; undetermined	Bronx Zoological Gardens, Bronx, New York
birth	07.XII.1988	F	Pearl	Thailand (23)/Indu (25)	Houston Zoological Gardens, Houston, Texas
birth	30.XII.1988	F	Angel	Vance (25)/Sally (14)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	21.IV.1989	F	Sue	46; euthanized: severe arthritis	Sacramento Zoo, Sacramento, California
stillborn	12.VII.1989	F	unnamed	Ranchipur (23)/Mary (25)	San Diego Wild Animal Park, Escondido, California
stillborn	20.VII.1989	M	unnamed	Vance (26)/Rosie (18)	Roman Schmitt, Busch Gardens, Tampa, Florida
birth/ death	21.VII.1989	M	unnamed	Vance (26)/Carina (17); lived 12 hours	Roman Schmitt, Busch Gardens, Tampa, Florida
death	07.VIII.1989	F	Zeta	52 or 62; natural death	Wild Animal Retirement Village, Waldo, Florida (owner still?: Jon Tarzan Zerbini)
death	XI or XII.1989	M	Sam (Sampson)	22; died under sedation	Fort Worth Zoological Garden, Fort Worth, Texas
death	20.XI.1989	F	unnamed	Ranchipur (23)/Jean (19): fetal distress	San Diego Wild Animal Park, Escondido, California
<i>in utero</i>					
death	? .XII.1989	F	Jean	19; euthanized; infarction of uterus leading to peritonitis	San Diego Wild Animal Park, Escondido, California
death	23.XII.1989	F	Kita	32; euthanized: arthritis, pneumonia, infected feet	Detroit Zoological Institute, Royal Oak, Michigan
death	18.II.1990	F	Babe	44; euthanized: severe arthritis	Brookfield Zoo, Brookfield, Illinois
birth	13.IV.1990	F	Karnaudi	Vance (Matt)(27)/Carina (18)	Roman Schmitt, Busch Gardens, Tampa, Florida
stillborn	23.IV.1990	M	unnamed	fetal distress: Indy (Butch) (19)/Babe (36)	Burnet Park Zoo, Syracuse, New York
death	12.V.1990	F	Babe	36; euthanized: infarction of uterus; renal disease	Burnet Park Zoo, Syracuse, New York
death	? .?IV.1990	F	Lisa	32; euthanized: ?foot problems (Owner: Chuck Pankow)	Bowmanville Zoo, Bowmanville, Ontario, Canada
birth	13.VI.1990	M	Omar	Ranchipur (24)/Connie (17)	San Diego Wild Animal Park, Escondido, California
birth	14.VII.1990	F	Maharani	Bandara (15)/Kamala (15)	Calgary Zoo, Calgary, Alberta, Canada
death	? .VIII.1990	F	Jewel	44-47; ?pneumonia	William Morris, Sarasota, Florida
birth	11.X.1990	F	Shanti	Big Mac (Onyx) (28)/Bozie (15) (dam on loan to Dickerson Park Zoo, Missouri)	Lincoln Park Zoological Gardens, Chicago, Illinois
death	23.XII.1990	F	Maya	51; euthanized: torn ligaments; degenerative arthritis	San Diego Zoo, San Diego, California
stillborn	06.I.1991	F	Belle	Vance (27)/Sid (26)	Roman Schmitt, Busch Gardens, Tampa, Florida

Table 4 – continued

death	24.III.1991	M	Omar	9.3 months; euthanized: rejected by mother	San Diego Wild Animal Park, Escondido, California
birth	04.IV.1991	M	Colonel Tusk	Bukalee (22)/Whimpy (21) both on loan from Bucky Steele	African Lion Safari, Cambridge, Ontario, Canada
birth	10.VII.1991	M	Tundi	Indy (Butch) (20)/Romani (15)	Burnet Park Zoo, Syracuse, New York
birth	17.VII.1991	F	Kimba	Thailand (26)/Me-Thai (23)	Houston Zoological Gardens, Houston, Texas
birth	26.VII.1991	F	Maiya (Kate)	Big Mac (Onyx) (29)/Connie (27)	Dickerson Park Zoo, Springfield, Missouri
death	01.IX.1991	F	Pearl	2.5; bacterial toxin (captive-born)	Lincoln Park Zoological Gardens, Chicago, Illinois
stillborn	27.IX.1991	M	unnamed	Ranchipur (25)/Mary (27)	San Diego Wild Animal Park, Escondido, California
birth/ death	06.X.1991	M	unnamed	Hugo (29)/Pet (36) 1 day; euthanized: deformed	Metro Washington Park Zoo, Portland, Oregon
birth/ death	25.X.1991	F	unnamed	Thailand (26)/Indu (26) euthanized in the same day	Houston Zoological Gardens, Houston, Texas
death	? .XI.1991	M	Bandara (from Sri Lanka)	16; congestive heart failure	Calgary Zoo, Calgary, Alberta, Canada
death	22.XI.1991	F	Matteau	?80; ?stroke	Tote-Em-In Zoo, Wilmington Beach, North Carolina
birth	19.XII.1991	M	Benny	Vance (28)/Josky (24)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	? .?.1992	F	Mia	about 50; unknown	Ringling Bros. and Barnum & Bailey, Venice, Florida
death	? .?.1992	F	Nelly	about 50; unknown	Ringling Bros. and Barnum & Bailey, Venice, Florida
death	01.II.1992	F	Kelly (Janet)	?; shot	Great American Circus, Sarasota, Florida
birth	04.IV.1992	F	Tanya	Vance (Matt) (28)/Mala (26)	Roman Schmitt, Busch Gardens, Tampa, Florida
birth	17.IV.1992	F	Maya	Vance (Matt) (28)/Sally (18)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	23.V.1992	F	Kate	22; euthanized (hip injury on Circus Vargas in 1980's)	Riddle's Elephant Breeding Farm and Wildlife Sanctuary, Greenbrier, Arkansas
birth	25.V.1992	M	Mickey	Vance (Matt) (28)/Birka (25)	Roman Schmitt, Busch Gardens, Tampa, Florida
death <i>in utero</i>	07.IX.1992	M	unnamed	Big Mac (Onyx) (30)/Tuffie (28)	Dickerson Park Zoo, Springfield, Missouri
death	07.IX.1992	F	Tuffie (Kathy)	28; stress and complications of cesarean section to remove dead fetus	Dickerson Park Zoo, Springfield, Missouri (dam from Jo-Don Farms, Inc., Frankville, Wisconsin)
birth	08.XI.1992	F	Rozana	Ranchipur (26)/Alice (18) (breeding took place at San Diego Wild Animal Park, Escondido, California)	Rio Grande Zoological Park, Albuquerque, New Mexico
death	23.XI.1992	F	Peggy	41; ?	Busch Gardens, Tampa, Florida
birth	27.XII.1992	M	Raja	Big Mac (Onyx) (30)/Pearl (21)	St. Louis Zoological Park, St. Louis, Missouri
birth	30.XII.1992	F	Juliette	Charlie (22)/Iki II (Icky) (17)	Ringling Bros. and Barnum & Bailey, Venice, Florida
birth	10.I.1993	M	Romeo	Charlie (22)/Alana (17)	Ringling Bros. and Barnum & Bailey, Venice, Florida
death	24.I.1993	F	Lulu	42; euthanized: recurrent dental abscess causing progressive weight loss	Zoological Society of Buffalo, Buffalo, New York
death	28.I.1993	F	Rosy	42; euthanized: ?	Metro Washington Park Zoo, Portland, Oregon
death	01.II.1993	M	Thongtrii	13; ? (captive born at Washington Park Zoo, Portland, Oregon)	Chaffee Zoological Park, Fresno, California
death	28.II.1993	F	Maiya (Kate)	19 months; ? (captive-born)	Dickerson Park Zoo, Springfield, Missouri
death	28.IV.1993	F	Tamba	22; euthanized; complications due to broken leg in 1991	Metro Washington Park Zoo, Portland, Oregon
birth	02.V.1993	M	Nikolai	Tusko (22)/Mookee (Kitty) (31)	African Lion Safari, Cambridge, Ontario, Canada
death	14.X.1993	F	Nosey	47; euthanized: arthritis; possible uterine cancer	Chaffee Zoological Park, Fresno, California
birth/ death	16.IX.1993	?	Unnamed	Motek (?33)/Phoebe (Vashti) (7) (breeding took place at Ramat-Gan, Israel)	African Lion Safari, Cambridge, Ontario, Canada



Table 4 – continued

death	26.XI.1993	M	Maverick (captive born)	7; ?unknown	Tulsa Zoo and Living Museum, Tulsa, Oklahoma
birth/ death	07.XII.1993 15.XII.1993	M	Bernie	Tunga (30)/Amy (?) (survived 8 days)	Hawthorn Corporation, Grayslake, Illinois
birth	14.XII.1993	F	Kumari	Indy (Butch) (22)/Shanthi (17) (bred at Burnet Park Zoo, Syracuse, NY)	National Zoological Park, Washington, DC
birth	15.XII.1993	M	Nickolaus	Tunga (30)/Ronnie (27)	Hawthorn Corporation, Grayslake, Illinois
birth	29.XII.1993	F	Singgah	Thai(land) (28)/Me-Thai (24)	Houston Zoological Gardens, Houston, Texas
death	21.I.1994	F	Lois	23/24; infection in right front foot	Ralph Mitchell Zoo, Riverside Park, Kansas
death	10.II.1994	F	Peggy	53; euthanized: ?	Philadelphia Zoological Gardens, Philadelphia, PA
death	17.II.1994	F	Ruth	45; died under anaesthesia during testing for tuberculosis	Detroit Zoological Institute, Royal Oak, Michigan
birth	27.II.1994	F	Natasha (Josee)	Bukalee or Tusko?/Whimpy (25) (dam on loan from B. Steele, Jefferson, Texas)	African Lion Safari, Cambridge, Ontario, Canada
stillborn	11.IV.1994	F	Maya	unknown/Tara (20) (bred at African Lion Safari, Canada)	Nashville Zoo, Joelton, Tennessee (dam owned by C. Buckley)
death	21.IV.1994	F	Toni	22; digestive abnormality	Utah's Hogle Zoo, Salt Lake City, Utah
birth	19.VIII.1994	M	Kenny	Vance (Matt) (31)/Minyak (28)	Roman Schmitt, Busch Gardens, Tampa, Florida
birth	31.VIII.1994	F	Rose-Tu	Hugo (Doc) (34)/Me-Tu (32)	Metro Washington Park Zoo, Portland, Oregon
birth/ death	31.VIII.1994	F	unnamed twin	Hugo (Doc) (34)/Me-Tu (32) (second-born of twins did not survive)	Metro Washington Park Zoo, Portland, Oregon
death	10.IX.1994	F	Amy	?; ? (on loan from C. Miller, Hugo, OK)	Hawthorn Corporation, Grayslake, Illinois
death	18.X.1994	F	Mona	26; undetermined cause (on loan from Al Barnes)	Mesker Park Zoo, Evansville, Indiana
death	21.X.1994	F	Kay	?60; natural causes	Carson & Barnes Circus, Hugo, Oklahoma
birth	29.X.1994	F	Bonnie	Vance (Matt) (31)/Sid (30)	Roman Schmitt, Busch Gardens, Tampa, Florida
birth	11.XII.1994	F	Picalena (Picolina)	Alexander (16)/Lilly (Israella) (10) (bred at Ramat-Gan, Israel)	African Lion Safari, Cambridge, Ontario, Canada
death	17.XII.1994	F	Dumbo	46; undetermined cause	Hawthorn Corporation, Grayslake, Illinois
death	?.?.1994	F	Sue	?; ?	Clyde Beatty Cole Bros. Circus, DeLand, Florida
birth	02.II.1995	F	Asha	Big Mac (Onyx) (33)/Connie (30)	Dickerson Park, Springfield, Missouri
birth	03.II.1995	M	Benjamin	Vance (Matt) (32)/Josky (29)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	13.II.1995	F	Bombay	63; undetermined cause	Hawthorn Corporation, Grayslake, Illinois
birth	19.II.1995	F	Shirley	Vance (Matt) (32)/Mala (29)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	10.IV.1995	F	Penny (Pennie)	41; euthanized: arthritis	San Francisco Zoological Gardens, San Francisco, CA
death	26.IV.1995	F	Kumari	16 mths; endotheliotropic herpesvirus infection	National Zoological Park, Washington, DC
death	27.IV.1995	F	Mary	?50's; ?natural causes	Donnie Johnson, Seagoville, Texas
birth	20.VI.1995	F	Kirina	Indy (Butch) (22)/Romani (20)	Burnet Park Zoo, Syracuse, New York
death	?.VII.1995	F	Marie	42; undetermined cause	St. Louis Zoo, St. Louis, Missouri
stillborn	28.VII.1995	?	unnamed	Thai(land) (30)/Indu (30)	Houston Zoological Gardens, Houston, Texas
death	28.VIII.1995	M	Stoney (Stonie)	22; undetermined cause (following broken leg) (captive-born at Washington Park Zoo, Portland, Oregon)	M. La Torres, Bartow, Florida
death	?.X.1995	F	Rose	57; self-inflicted injuries	Murray Hill, Fordland, Missouri
death	26.XI.1995	F	Mardji	42; euthanized:musculoskeletal problems	Marine World Africa USA, Vallejo, California
death	?.?.1995	F	Cita	53; natural causes	Ringling Bros. and Barnum & Bailey, Venice, Florida
death	?.?.1995	F	Ranni	53; natural causes	Ringling Bros. and Barnum & Bailey, Venice, Florida

Table 4 – continued

death	?.?.1995	F	Rhani	45; natural causes	Ringling Bros. and Barnum & Bailey, Venice, Florida
death	?.?.1995	F	Karnaudi	34; natural causes	Ringling Bros. and Barnum & Bailey, Venice, Florida
birth	01.I.1996	F	Kelly Ann	Vance (Matt) (32)/Sally (22)	Center for Elephant Conservation, Polk City, Florida [i]
death	13.II.1996	F	Me Tu	34; euthanized:bacterial infection	Metro Washington Park Zoo, Portland, Oregon
death	?.V.1996	F	Dolly	36; undetermined digestive problems	Trunks & Humps (B. Swain), Cut & Shoot, Texas
stillborn	22.V.1996	M	unnamed	? / Seetna (30) (on loan from Miami MetroZoo, Florida)	Roman Schmitt, Busch Gardens, Tampa, Florida
death	22.V.1996	F	Seetna	30; during delivery of calf	Roman Schmitt, Busch Gardens, Tampa, Florida
death	12.VI.1996	F	Carrie	58/59; natural causes	Cristiani Elephants, Sarasota, Florida
death	17.VI.1996	F	Bandula	30; euthanized: chronic arthritis	Marine World Africa USA, Vallejo, California
stillborn	23.VI.1996	M	unnamed twins	?Groucho (25)/Babe (29)	Fort Worth Zoological Park, Fort Worth, Texas
birth	02.VIII.1996	F	Chandra	Big Mac (Onyx) (34)/Moola (17) (dam on loan from Milwaukee County Zoological Gardens, Milwaukee, Wisconsin)	Dickerson Park Zoo, Springfield, Missouri
death	03.VIII.1996	F	Hattie	26; tuberculosis	Hawthorn Corporation, Grayslake, Illinois
birth	05.VIII.1996	F	Rani	Indy (Butch) (25)/Ellie (25) (bred at Burnet Park Zoo, Syracuse, New York)	Jacksonville Zoological Park, Jacksonville, Florida
death	07.VIII.1996	F	Joyce	48; tuberculosis	Hawthorn Corporation, Grayslake, Illinois
death	19.IX.1996	M	Tunga	32; ?massive heart failure	Hawthorn Corporation, Grayslake, Illinois
death	Winter 1997	F	Ola	?50; succumbed during an operation	Clyde Beatty Cole Circus, DeLand, Florida
birth	28.II.1997	F	Mali	Indy (Butch) (24)/Targa (14) (captive-born)	Burnet Park Zoo, Syracuse, New York
death	24.III.1997	F	Annie	32; undetermined cause	Los Angeles Zoo, Los Angeles, California
death	22.IV.1997	F	Belle	45; euthanized: musculoskeletal problems and infection	Metro Washington Park Zoo, Portland, Oregon
premature	26.IV.1997	M	unnamed	Kiba (10)/Kimba (6) - siblings	Houston Zoological Gardens, Houston, Texas
birth	08.V.1997	M	Doc	Charlie (25)/Alana (20)	Center for Elephant Conservation, Polk City, Florida
birth	23.VI.1997	F	Angelica	Charlie (25)/Iki II (Icky) (20)	Center for Elephant Conservation, Polk City, Florida
death	?.?VII.1997	F	Annabelle (Annie)	33; ?	The Alaska Zoo, Anchorage, Alaska
stillborn	06.IX.1997	M	unnamed	Big Mac (Onyx) (35)/Vicky (36) (dam on loan, George Carden Circus International, Springfield, Missouri)	Dickerson Park Zoo, Springfield, Missouri
death	08.X.1997	F	Judy	52; unknown (possible cancer)	Oklahoma City Zoo, Oklahoma City, Oklahoma
death	18.X.1997	F	Missy	35; euthanized: arthritis	Detroit Zoological Institute, Royal Oak, Michigan
death	24.I.1998	M	Kenny	4; ?Clostridial enterotoxemia (captive-born at Polk City, Florida)	Ringling Bros. and Barnum & Bailey, Venice, Florida
birth	15.III.1998	M	Ganesh	Sabu-Hi (11)/Jati-Miss (12)	Cincinnati Zoo and Botanical Garden, Cincinnati, Ohio
birth	17.V.1998	M	Kala	Big Mac (Onyx) (34)/Patience (24)	Dickerson Park Zoo, Springfield, Missouri
birth	30.VII.1998	F	Annie	Calvin (Chanda) (12)/Tess (14) (sire captive-born)	Have Trunk Will Travel, Perris, California (bred in Cambridge, Ontario, Canada)
death	31.VII.1998	M	Kiba (captive-born)	11; endotheliotropic herpesvirus infection (transferred from Houston Zoo, Houston, Texas, 9 months before)	Berlin Zoo, Berlin, Germany
birth	21.VIII.1998	M	Amos	Calvin (Chanda) (12)/Becky (13) (sire from African Lion Safari)	Have Trunk Will Travel, Perris, California (bred in Cambridge, Ontario, Canada)
birth	06.IX.1998	F	Jennie	Bukalee (30)/Isa (30) (bred at Bucky Steele's Ranch, Jefferson, Texas)	Carson & Barnes Circus, Hugo, Oklahoma
death <i>in utero</i>	Fall 1998	?	unnamed	Sneezy (26/27)/Ruby (25) (sire at Tulsa Zoo and Living Museum, Oklahoma)	Phoenix Zoo, Phoenix, Arizona (bred at Tulsa Zoo and Living Museum, Tulsa, Oklahoma)
death	?.XI.1998	F	Ruby	25; euthanized: ruptured uterus	Phoenix Zoo, Phoenix, Arizona

Table 4 – continued

birth	16.XII.1998	F	Bluebonnet	Groucho (27/28)/Rasha (25)	Fort Worth Zoo, Fort Worth, Texas
stillborn	22.II.1999	?	unnamed	Coco (27)/Connie (26) (dam on loan from San Diego Wild Animal Park, Escondido, California)	Columbus Zoological Gardens & Aquarium, Powell, OH
birth/ death	?III.1999	F	unnamed	Bukalee (30)/DelRita (30) breach presentation; fetus died	Carson & Barnes Circus, Hugo, Oklahoma (bred at Bucky Steele's Ranch, Jefferson, Texas)
death	24.III.1999	F	Annie	8 months; suffocation from blood in lungs - no cause determined yet	Have Trunk Will Travel, Perris, California
death	11.VI.1999	M	Tony	27; euthanized:degenerative condition	Bowmanville Zoo, Bowmanville, Ontario, Canada
death	28.VII.1999	M	Benjamin	4.5 years; drowned (possible cause: cardiac arrhythmia); captive-born at Busch Gardens, Tampa, Florida	Ringling Bros. and Barnum & Bailey, Venice, Florida
birth	15.VIII.1999	M	Osgood	Charlie (30)/Emma (30)	Center for Elephant Conservation, Polk City, Florida
death	21.VIII.1999	F	Pete (Petunia)	?47; ?renal failure	Clyde Beatty Cole Circus, DeLand, Florida
death	03.IX.1999	F	Conti	?50's; renal failure	Clyde Beatty Cole Circus, DeLand, Florida
death	?IX.1999	F	Bertha	48; ?	Nugget Hotel Casino, Sparks, Nevada
death	?IX.1999	F	Tadji	56; ?	Marine World Africa USA, Vallejo, California
birth	28.IX.1999	M	Haji	?Onyx (37)/Moola (18) (dam on loan from Milwaukee County Zoo, Wisconsin)	Dickerson Park Zoo, Springfield, Missouri [j].

**Footnotes**

\* change from cause of death as previously published

[a]. This is the fourth compilation of such data. Previous issues of *Elephant* with this feature were: 2(1):149-150, 2(2):125-130, and 2(3):75.

Other sources consulted are given in text. In these tables, we have included elephants listed in ISIS censuses.

[b]. When available, day.month (in Roman numbers).year, are provided.

[c]. M = Male, F = Female

[d]. Age is given in years, unless stated otherwise. Cause of death as given by the sources consulted. In some entries, the text flows from this column into the column on the right.

[e]. The two-letter abbreviations (e.g., CA = California) for states and districts are the same as used by the US Postal Service.

[f]. This was the only African forest elephant in North America from late 1987 until death in 1991 (see Bud, 10.XI.1991.)

[g]. IESF stands for International Elephant Survival Foundation.

[h]. This is the first time a captive-born African elephant has successfully given birth to a calf in a zoo in North America (see 12.IX.1999 for details on birth).

[i]. Center for Elephant Conservation is owned by Ringling Bros. and Barnum & Bailey, Vienna, Virginia (a subsidiary of Feld Entertainment Inc.).

[j]. This is the FIRST birth through artificial insemination of an Asian elephant, in the world.

**Summary to Table 4:**

- Since January 1, 1988, there have been 4 births of Africans (plus 2 stillbirths and 1 fetal death) and 50 births of Asians (plus 29 stillbirths or deaths within the first year of life). Of 54 successful births in the past 12 years, 44 elephants are living today.
- Total number of deaths since January 1, 1988: 159 (68 Africans and 91 Asians, not including 31 stillbirths and at least 2 fetal deaths).
- Of the African elephants that died, two were identified as *L. a. cyclotis*. There are no African forest elephants remaining in captivity in North America.
- Two sets of twins were conceived and carried to full-term; only one twin from one set survived.
- Based on data presented in Tables 1 - 3 and in this table, the total number of captive elephants in North America is 595 elephants — 326 Asians, 269 Africans; 83 males, 512 females (as of December 31, 1999).
- The largest number of calves was sired by the Asian elephant Vance (Matt), owned by Roman Schmitt (and now by Ringling Bros. and Barnum and Bailey) and residing at Center for Elephant Conservation. 15 pregnancies in 11 years, as recorded here, are attributed to this individual elephant. ■