

**2008 SSP Breeding Plan**  
**Kori Bustard** (*Ardeotis kori*)

**ASSOCIATION  
OF ZOOS &  
AQUARIUMS**



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## **Breeding and Transfer Plans for KORI BUSTARD (ARDEOTIS KORI) Species Survival Plan – 2008**

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Report compiled under Population Management 2000, version 1.202

The last Breeding and Transfer Plans for this species were completed January 2007.

Sara Hallager  
Smithsonian National Zoological Park, hallagers@si.edu  
Species Coordinator, Studbook Keeper

Dr. Jonathan Ballou  
Smithsonian National Zoological Park, ballouj@si.edu  
SPMAG Advisor

### **Kori Bustard SSP Management Group**



Sara Hallager, Chair, National Zoological Park  
James Ballance, Vice Chair, Zoo Atlanta  
Donna Bear-Hull, Jacksonville Zoo  
Chris Brown, Dallas Zoo  
Mike Mace, San Diego Wild Animal Park  
Jeff Sailer, Central Park Zoo

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## Current Population

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Demographic population: there are currently 59 animals (27 males; 29 females; 3 unknown) at 18 institutions.

Genetic population: there are currently 58 animals (26 males; 29 females; 3 unknown) at 17 institutions

### Genetic summary table:

	Current	Potential
Founders	14	9 additional
Founder genome equivalents	7.35	21.63
Founder genome surviving	11.27	21.63
Gene diversity retained	0.930	0.978
Population mean kinship	0.068	0.022
Mean inbreeding	0	0.022
Ne / N	0.18	-----
% of pedigree known	100	-----

### Demographic summary table:

Current size of managed population	59 (27.29.3)
# Specimens excluded from management	1
Mean generation time	15-16 years
Potential population growth rate	0.957
# Births in past year	10
# Deaths in past year	12

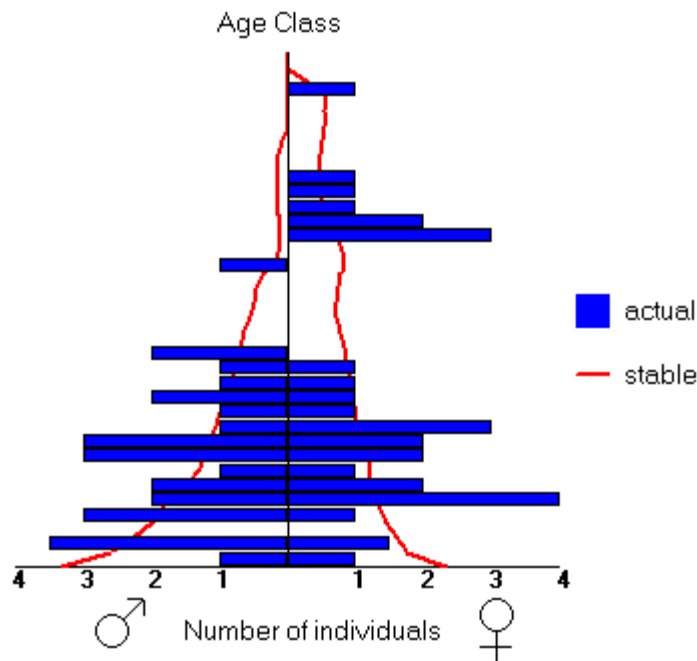
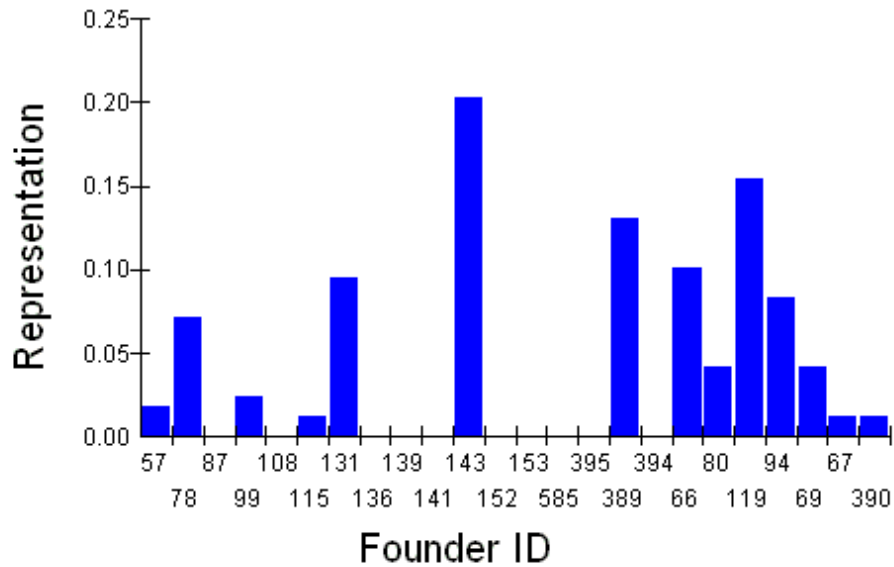
### Description of Population Status

The goal in 2007 was to grow the population. The population remained steady however, at around 60 birds. There is current demand for about five additional birds, so the short-term goals for 2008 are to continue to grow the population. Based on past mortality rates, this will require about 19 chicks. PM2000 predicts that there might be about 11 deaths in 2006 based on historical mortality rates. However, in recent years (2001-2004) mortality has been below the historical average (4-7 per year), so the number of chicks needed to grow to 70 may be less than the predicted 17, perhaps as low as 12-13 assuming mortality rates follow historic trends. Long-range goals are to increase the population towards a larger target population.

The mean kinship improved slightly in 2007 (from 0.07 to 0.068) with the breeding of female studbook 115.

Several locations hold breeding pairs that are not recommended for breeding because they are over-represented. However, these over-represented pairs can breed in 2008 if chicks are needed to maintain demographics within the US population.

## Founder Representation



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## Demographic Summary

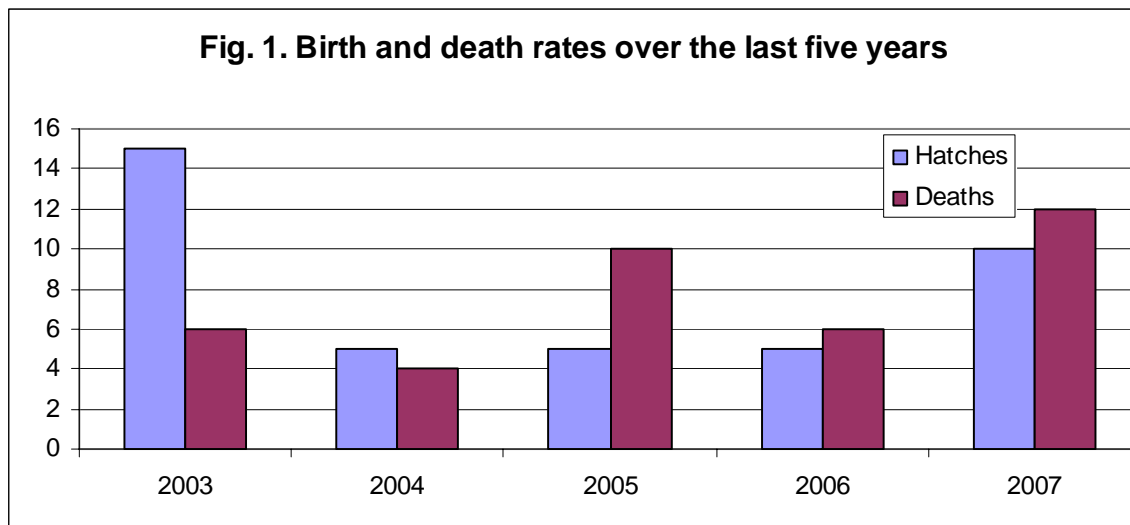
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Current size of managed population	59 (27.29.3)
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Mean generation time	15-16 years
Potential population growth rate	0.957
# Births in past year	10
# Deaths in past year	12

The demographic summary includes all North American kori bustards from 1940 (the date when kori bustards first entered the US) until present day.

1. Sufficient demographic data are not available at this point to estimate generation length from the studbook. Age of first known reproduction in captivity is now known to be 3 years (a captive born bird) and the oldest reproductively active birds to date have been a 30 year old female and a 28 year old male. Generation length is assumed to be at the midpoint of these two years (15-16 years).

2. Over the last five years hatch rates were highest in 2003 and 2007 (Fig 1). Births in general are still attributable to a small number of birds that produce numerous offspring. At this point, this appears to be the only method of maintaining a self-sustaining population without the addition of imports and/or breeding of potential founders. Hatch rates in 2004 were kept purposely low due to limited space. Death rates in 2007 were high – 12 deaths compared to an average of 6.5 deaths / year the previous five years.



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## Individual Breeding Recommendations

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### ATLANTA

#### Zoo Atlanta

Atlanta, GA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
547	A20019	M	6	HOLD	ATLANTA		

### AUDUBON

#### Audubon Zoo

New Orleans, LA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
384	2317	M	10	HOLD	AUDUBON	BREED WITH	400, 438
400	2551	F	9	HOLD	AUDUBON	BREED WITH	384
438	100903	F	8	HOLD	AUDUBON	BREED WITH	384
664	102310	U	0	HOLD	AUDUBON	SEE NOTES	Sex and transfer (facility to be determined)

### BIRMINGHAM

#### Birmingham Zoo

Birmingham, AL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
545	B02018	M	7	HOLD	BIRMINGHAM	SEE NOTES	Breed if needed for demographics
546	B02066	F	6	HOLD	BIRMINGHAM	SEE NOTES	Breed if needed for demographics
591	204025	F	4	HOLD	BIRMINGHAM	SEE NOTES	Breed if needed for demographics

### COLO SPRG

#### Cheyenne Mountain Zoological Park

Colorado Springs, CO

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
480	22A004	M	7	HOLD	COLO SPRG	BREED WITH	534
534	22A007	F	7	HOLD	COLO SPRG	BREED WITH	480
621	27A045	M	2	HOLD	COLO SPRG	SEE NOTES	Show bird but can breed with 534

## DALLAS

### Dallas Zoo

Dallas, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
57	002024	F	32	HOLD	DALLAS	BREED WITH	152, 370
131	948952	F	22	HOLD	DALLAS	BREED WITH	152, 370
136	886438	F	22	HOLD	DALLAS	BREED WITH	152, 370
152	05G219	M	13	HOLD	DALLAS	BREED WITH	131, 136, 57
370	98C313	M	11	HOLD	DALLAS	BREED WITH	131, 136, 57
652	UNK	U	1	HOLD	DALLAS		Sex and transfer (facility to be determined)

## DENVER

### Denver Zoological Gardens

Denver, CO

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
590	A04146	M	4	HOLD	DENVER		

## FRANKLINP

### Zoo New England / Franklin Park Zoo

Boston, MA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
371	A04412	F	10	HOLD	FRANKLINP	BREED WITH	615
608	F03482	F	4	HOLD	FRANKLINP	BREED WITH	615
615	A05462	M	3	HOLD	FRANKLINP	BREED WITH	371, 608

## JACKSONVL

### Jacksonville Zoo and Gardens

Jacksonville, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
430	601341	F	9	HOLD	JACKSONVL	BREED WITH	611
611	606306	M	5	HOLD	JACKSONVL	BREED WITH	430

## KANSASCTY

### Kansas City Zoo

Kansas City, MO

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
437	A03051	M	8	HOLD	KANSASCTY	BREED WITH	477
477	A05038	F	7	HOLD	KANSASCTY	BREED WITH	437

## **METROZOO**

### **Miami Metrozoo**

Miami, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
78	B50373	F	26	HOLD	METROZOO	BREED WITH	153, 394
139	B30080	F	22	HOLD	METROZOO	BREED WITH	153, 394
153	B50372	M	13	HOLD	METROZOO	BREED WITH	78, 139, 356
356	B50183	F	10	HOLD	METROZOO	BREED WITH	153, 394
394	B50134	M	12	HOLD	METROZOO	BREED WITH	78, 139, 356

## **NZP-WASH**

### **National Zoological Park, Smithsonian Institution**

Washington, DC

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
87	215349	F	25	HOLD	NZP-WASH	BREED WITH	143
115	215326	F	23	HOLD	NZP-WASH	BREED WITH	143
143	214461	M	20	HOLD	NZP-WASH	BREED WITH	87, 115
389	214097	F	12	HOLD	NZP-WASH	SEE NOTES	Breed with 143 if needed for demographics
654	215631	M	0	SEND TO	PHOENIX		
655	215632	F	0	HOLD	NZP-WASH		
656	215634	M	0	SEND TO	NASHVILLE		
657	215635	M	0	SEND TO	PHOENIX		

## **PALM DES**

### **The Living Desert Zoo and Gardens**

Palm Desert, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	
612	205003	F	3	HOLD	PALM DES	DO NOT BREED	siblings
613	205002	M	3	HOLD	PALM DES	DO NOT BREED	siblings

## **SD-WAP**

### **San Diego Wild Animal Park**

Escondido, CA

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
99	029555	F	24	HOLD	SD-WAP	BREED WITH	367, 585, 617
108	387166	F	23	HOLD	SD-WAP	BREED WITH	367, 585, 617
367	UNK	M	10	HOLD	SD-WAP	BREED WITH	99, 108, 395
395	898317	F	13	HOLD	SD-WAP	BREED WITH	367, 585, 617
585	898316	M	13	HOLD	SD-WAP	BREED WITH	99, 108, 395
617	805001	M	3	HOLD	SD-WAP	BREED WITH	99, 108, 395

## **SEDGWICK**

### **Sedgwick County Zoo**

Wichita, KS

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
544	11641	M	7	HOLD	SEDGWICK	SEE NOTES	Breed if needed for demographics
598	10813	F	4	HOLD	SEDGWICK	SEE NOTES	Breed if needed for demographics

## **TOLEDO**

### **Toledo Zoological Gardens**

Toledo, OH

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
429	4218	F	9	HOLD	TOLEDO	BREED WITH	435
435	3860	M	8	HOLD	TOLEDO	BREED WITH	429, 588
588	3481	F	5	HOLD	TOLEDO	BREED WITH	435

## **TUCSON**

### **Reid Park Zoo**

Tucson, AZ

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
474	X55097	M	7	HOLD	TUCSON	SEE NOTES	Breed if needed for demographics
614	T55140	F	3	HOLD	TUCSON	SEE NOTES	Breed if needed for demographics

## WACO

### Cameron Park Zoo

Waco, TX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
428	B02800	M	9	HOLD	WACO	BREED WITH	448
448	B02700	F	8	HOLD	WACO	BREED WITH	428
665	B10807	U	0	SEND TO			Sex and transfer (facility to be determined)

## YULEE

### White Oak Conservation Center

Yulee, FL

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
610	Y45303	M	4	HOLD	YULEE	SEE NOTES	Breed if needed for demographics
623	Y65301	F	2	HOLD	YULEE	SEE NOTES	Breed if needed for demographics

## PHOENIX

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
654	215631	M	0	RECEIVE FROM	NZP-WASH		
657	215635	M	0	RECEIVE FROM	NZP-WASH		

## NASHVILLE

ID	Local ID	Sex	Age	Disposition	Location	Breeding	With
656	215634	M	0	RECEIVE FROM	NZP-WASH		

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## Summary of Breeding and Transfer Plan

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ID	Location	Local ID	Sex	Age	Disposition	Location	Breeding	With
547	ATLANTA	A20019	M	6	HOLD	ATLANTA		
384	AUDUBON	2317	M	10	HOLD	AUDUBON	BREED WITH	400, 438
400	AUDUBON	2551	F	9	HOLD	AUDUBON	BREED WITH	384
438	AUDUBON	100903	F	8	HOLD	AUDUBON	BREED WITH	384
664	AUDUBON	102310	U	0	HOLD	AUDUBON	SEE NOTES	Sex and transfer (facility to be determined)
545	BIRMINGHM	B02018	M	7	HOLD	BIRMINGHM	SEE NOTES	Breed if needed for demographics
546	BIRMINGHM	B02066	F	6	HOLD	BIRMINGHM	SEE NOTES	Breed if needed for demographics
591	BIRMINGHM	204025	F	4	HOLD	BIRMINGHM	SEE NOTES	Breed if needed for demographics
480	COLO SPRG	22A004	M	7	HOLD	COLO SPRG	BREED WITH	534
534	COLO SPRG	22A007	F	7	HOLD	COLO SPRG	BREED WITH	480
621	COLO SPRG	27A045	M	2	HOLD	COLO SPRG	SEE NOTES	Show bird – can breed with 534
131	DALLAS	948952	F	22	HOLD	DALLAS	BREED WITH	152, 370
136	DALLAS	886438	F	22	HOLD	DALLAS	BREED WITH	152, 370
152	DALLAS	05G219	M	13	HOLD	DALLAS	BREED WITH	131, 136, 57
370	DALLAS	98C313	M	11	HOLD	DALLAS	BREED WITH	131, 136, 57
652	DALLAS	UNK	U	1	HOLD	DALLAS	SEE NOTES	Sex and transfer (facility to be determined)
57	DALLAS	002024	F	32	HOLD	DALLAS	BREED WITH	141, 152, 370
590	DENVER	A04146	M	4	HOLD	DENVER		
371	FRANKLINP	A04412	F	10	HOLD	FRANKLINP	BREED WITH	615
608	FRANKLINP	F03482	F	4	HOLD	FRANKLINP	BREED WITH	615
615	FRANKLINP	A05462	M	3	HOLD	FRANKLINP	BREED WITH	371, 608
430	JACKSONVL	601341	F	9	HOLD	JACKSONVL	BREED WITH	611
611	JACKSONVL	606306	M	5	HOLD	JACKSONVL	BREED WITH	430
437	KANSASCTY	A03051	M	8	HOLD	KANSASCTY	BREED WITH	477
477	KANSASCTY	A05038	F	7	HOLD	KANSASCTY	BREED WITH	437
78	METROZOO	B50373	F	26	HOLD	METROZOO	BREED WITH	153, 394,
139	METROZOO	B30080	F	22	HOLD	METROZOO	BREED WITH	153, 394
153	METROZOO	B50372	M	13	HOLD	METROZOO	BREED WITH	78, 139, 356
356	METROZOO	B50183	F	10	HOLD	METROZOO	BREED WITH	153, 394
394	METROZOO	B50134	M	12	HOLD	METROZOO	BREED WITH	78, 139, 356
87	NZP-WASH	215349	F	25	HOLD	NZP-WASH	BREED WITH	143
115	NZP-WASH	215326	F	23	HOLD	NZP-WASH	BREED WITH	143
143	NZP-WASH	214461	M	20	HOLD	NZP-WASH	BREED WITH	87, 115

389	NZP-WASH	214097	F	12	HOLD	NZP-WASH	SEE NOTES	Breed if needed for demographics
654	NZP-WASH	215631	M	0	SEND TO	PHOENIX		
655	NZP-WASH	215632	F	0	HOLD	NZP-WASH		
656	NZP-WASH	215634	M	0	SEND TO	NASHVILLE		
657	NZP-WASH	215635	M	0	SEND TO	PHOENIX		
612	PALM DES	205003	F	3	HOLD	PALM DES	DO NOT BREED	
613	PALM DES	205002	M	3	HOLD	PALM DES	DO NOT BREED	
99	SD-WAP	029555	F	24	HOLD	SD-WAP	BREED WITH	367, 585, 617
108	SD-WAP	387166	F	23	HOLD	SD-WAP	BREED WITH	367, 585, 617
367	SD-WAP	A0807154	M	10	HOLD	SD-WAP	BREED WITH	99, 108, 395
395	SD-WAP	898317	F	13	HOLD	SD-WAP	BREED WITH	367, 585, 617
585	SD-WAP	898316	M	13	HOLD	SD-WAP	BREED WITH	99, 108, 395
617	SD-WAP	805001	M	3	HOLD	SD-WAP	BREED WITH	99, 108, 395
544	SEDGWICK	11641	M	7	HOLD	SEDGWICK	SEE NOTES	Breed if needed for demographics
598	SEDGWICK	10813	F	4	HOLD	SEDGWICK	SEE NOTES	Breed if needed for demographics
429	TOLEDO	4218	F	9	HOLD	TOLEDO	BREED WITH	435
435	TOLEDO	3860	M	8	HOLD	TOLEDO	BREED WITH	429, 588
588	TOLEDO	3481	F	5	HOLD	TOLEDO	BREED WITH	435
474	TUCSON	X55097	M	7	HOLD	TUCSON	SEE NOTES	Breed if needed for demographics
614	TUCSON	T55140	F	3	HOLD	TUCSON	SEE NOTES	Breed if needed for demographics
428	WACO	B02800	M	9	HOLD	WACO	BREED WITH	448
448	WACO	B02700	F	8	HOLD	WACO	BREED WITH	428
665	WACO	B10807	U	0	SEND TO			Sex and transfer (facility to be determined)
610	YULEE	Y45303	M	4	HOLD	YULEE	SEE NOTES	Breed if needed for demographics
623	YULEE	Y65301	F	2	HOLD	YULEE	SEE NOTES	Breed if needed for demographics

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**Appendix I: Animals excluded from genetic analysis**

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439 FORTWORTH: Because this bird belongs to a member of the private sector, recent AZA board approved policy changes in regards to non-member facilities necessitates exclusion of this bird from the SSP breeding plan for the upcoming breeding season.

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## Appendix II: Life Table data for males and females

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Age	Males					Females				
	Q <sub>x</sub>	P <sub>x</sub>	L <sub>x</sub>	M <sub>x</sub>	V <sub>x</sub>	Q <sub>x</sub>	P <sub>x</sub>	L <sub>x</sub>	M <sub>x</sub>	V <sub>x</sub>
0	0.330	0.670	1.000	0.000	1.198	0.410	0.590	1.000	0.000	1.258
1	0.140	0.860	0.670	0.000	1.544	0.080	0.920	0.590	0.000	1.681
2	0.190	0.810	0.576	0.000	1.776	0.180	0.820	0.543	0.000	1.834
3	0.090	0.910	0.467	0.000	1.999	0.080	0.920	0.445	0.010	2.018
4	0.150	0.850	0.425	0.030	2.182	0.150	0.850	0.409	0.000	2.156
5	0.160	0.840	0.361	0.010	2.450	0.100	0.900	0.348	0.020	2.351
6	0.150	0.850	0.303	0.100	2.780	0.030	0.970	0.313	0.010	2.378
7	0.140	0.860	0.258	0.050	3.017	0.070	0.930	0.304	0.060	2.372
8	0.060	0.940	0.222	0.050	3.183	0.210	0.790	0.283	0.040	2.551
9	0.110	0.890	0.208	0.050	3.292	0.010	0.990	0.223	0.010	2.721
10	0.120	0.880	0.185	0.080	3.524	0.060	0.940	0.221	0.050	2.674
11	0.090	0.910	0.163	0.000	3.707	0.100	0.900	0.208	0.070	2.713
12	0.050	0.950	0.149	0.120	3.839	0.080	0.920	0.187	0.020	2.766
13	0.260	0.740	0.141	0.120	4.222	0.130	0.870	0.172	0.140	2.917
14	0.050	0.950	0.104	0.050	4.760	0.070	0.930	0.150	0.370	2.944
15	0.100	0.900	0.099	0.680	4.896	0.050	0.950	0.139	0.590	2.608
16	0.110	0.890	0.089	0.290	4.531	0.170	0.830	0.132	0.290	2.154
17	0.250	0.750	0.079	0.650	4.953	0.070	0.930	0.110	0.470	2.027
18	0.000	1.000	0.060	0.520	4.830	0.000	1.000	0.102	0.220	1.538
19	0.000	1.000	0.060	1.670	4.147	0.000	1.000	0.102	0.180	1.254
20	0.500	0.500	0.060	2.290	3.179	0.000	1.000	0.102	0.110	1.023
21	0.500	0.500	0.030	1.710	1.710	0.000	1.000	0.102	0.150	0.869
22	0.000	1.000	0.015	0.000	0.000	0.280	0.720	0.102	0.110	0.795
23	0.000	1.000	0.015	0.000	0.000	0.000	1.000	0.073	0.090	0.779
24	0.000	1.000	0.015	0.000	0.000	0.200	0.800	0.073	0.000	0.729
25	0.000	1.000	0.015	0.000	0.000	0.340	0.660	0.059	0.000	0.941
26	0.000	1.000	0.015	0.000	0.000	0.000	1.000	0.039	0.000	1.126
27	0.000	1.000	0.015	0.000	0.000	0.000	1.000	0.039	0.000	1.072
28	0.000	1.000	0.015	0.000	0.000	0.000	1.000	0.039	1.020	1.020
29	1.000	0.000	0.015	0.000	0.000	0.000	1.000	0.039	0.000	0.000
30	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.039	0.000	0.000
31	1.000	0.000	0.000	0.000	0.000	0.000	1.000	0.039	0.000	0.000
32	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.039	0.000	0.000
33	1.000	0.000	0.000	0.000	0.000	1.000	0.000	0.000	0.000	0.000

Q<sub>x</sub> = mortality; P<sub>x</sub> = survival; L<sub>x</sub> = cumulative survivorship; M<sub>x</sub> = fecundity; V<sub>x</sub> = expected future reproduction

### Projected population growth rates

Males:  $r = -0.0385$ ;  $\lambda = 0.9623$ ;  $R_0 = 0.508$ ;  $T = 17.62$

Females:  $r = -0.0494$ ;  $\lambda = 0.9518$ ;  $R_0 = 0.400$ ;  $T = 18.53$

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### Appendix III : Ordered Mean Kinships

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Males						Females					
Rank	Stbk#	MK	Known	Age	Location	Rank	Stbk#	MK	Known	Age	Location
1	141	0.0000	100.0	20	DALLAS	1	87	0.0000	100.0	25	NZP-WASH
2	152	0.0000	100.0	13	DALLAS	2	108	0.0000	100.0	23	SD-WAP
3	153	0.0000	100.0	13	METROZOO	3	136	0.0000	100.0	22	DALLAS
4	585	0.0000	100.0	13	SD-WAP	4	139	0.0000	100.0	22	METROZOO
5	394	0.0000	100.0	12	METROZOO	5	395	0.0000	100.0	13	SD-WAP
6	428	0.0238	100.0	9	WACO	6	115	0.0060	100.0	23	NZP-WASH
7	615	0.0327	100.0	3	FRANKLINP	7	57	0.0089	100.0	32	DALLAS
8	617	0.0327	100.0	3	SD-WAP	8	99	0.0119	100.0	24	SD-WAP
9	384	0.0446	100.0	10	AUDUBON	9	534	0.0194	100.0	7	COLO SPRG
10	367	0.0491	100.0	10	SD-WAP	10	78	0.0357	100.0	26	METROZOO
11	621	0.0521	100.0	2	COLO SPRG	11	429	0.0402	100.0	9	TOLEDO
12	656	0.0595	100.0	0	NZP-WASH	12	430	0.0402	100.0	9	JACKSONVL
13	544	0.0632	100.0	7	SEDGWICK	13	131	0.0476	100.0	22	DALLAS
14	545	0.0632	100.0	7	BIRMINGHM	14	477	0.0476	100.0	7	KANSASCTY
15	435	0.0655	100.0	8	TOLEDO	15	371	0.0491	100.0	10	FRANKLINP
16	437	0.0655	100.0	8	KANSASCTY	16	588	0.0632	100.0	5	TOLEDO
17	370	0.0670	100.0	11	DALLAS	17	614	0.0632	100.0	3	TUCSON
18	611	0.0893	100.0	5	JACKSONVL	18	623	0.0632	100.0	2	YULEE
19	610	0.0893	100.0	4	YULEE	19	389	0.0655	100.0	12	NZP-WASH
20	613	0.0893	100.0	3	PALM DES	20	356	0.0655	100.0	10	METROZOO
21	654	0.0893	100.0	0	NZP-WASH	21	400	0.0655	100.0	9	AUDUBON
22	657	0.0893	100.0	0	NZP-WASH	22	438	0.0685	100.0	8	AUDUBON
23	474	0.0952	100.0	7	TUCSON	23	448	0.0685	100.0	8	WACO
24	480	0.0952	100.0	7	COLO SPRG	24	591	0.0893	100.0	4	BIRMINGHM
25	547	0.0952	100.0	6	ATLANTA	25	598	0.0893	100.0	4	SEDGWICK
26	590	0.0952	100.0	4	DENVER	26	608	0.0893	100.0	4	FRANKLINP
27	143	0.1012	100.0	20	NZP-WASH	27	612	0.0893	100.0	3	PALM DES
						28	655	0.0893	100.0	0	NZP-WASH
						29	546	0.0952	100.0	6	BIRMINGHM

### Ordered Mean Kinships for Unknown sex animals

Rank	Stbk#	MK	Known	Age	Location
1	664	0.0625	100.0	0	AUDUBON
2	652	0.0632	100.0	1	DALLAS
3	665	0.0893	100.0	0	WACO

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## **Appendix IV: Definitions**

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### Genetic terms

*Gene diversity*- The proportional gene diversity is the probability that two alleles from the same locus sampled at random from the population will not be identical by descent.. Gene diversity is calculated from allele frequencies and is the heterozygosity expected in progeny produced by random mating

*Founder*- an individual obtained from a source population (often the wild) that has no known relationship to any individuals in the derived population (except for its own descendents)

*Inbreeding coefficient*- probability that the two alleles at a genetic locus are identical by descent from an ancestor common to both parents.

*Founder Genome Equivalent*- the number of wild caught individuals (founders) that would produce the same amount of gene diversity, as does the population under study

*Descendant population Mean Kinship*- The mean kinship coefficient between an animal and all animals (including itself) in the living, captive born population.

### Demographic terms

*Generation length*- the average time elapsing from reproduction in one generation to the time the next generation reproduces. Also, the average age at which a male or female produces offspring. It is not age of first reproduction. Males and females may have different generation times.

*Population growth last year ( $\lambda$ )*- the proportional change in population size from one year to the next.  $\lambda$  can be based on life-table calculations (the expected  $\lambda$ ) or from observed changes in population size from year to year. A  $\lambda$  of 1.11 means a 11% per year increase;  $\lambda$  of 0.97 means a 3% decline in size per year.

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## **Appendix V: Institutional representatives**

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### **BIRMINGHAM**

Birmingham Zoo  
2630 Cahaba Rd.  
Birmingham, AL USA 35223  
Phone: (205)879-0409 x251  
Email: tsnyder@birminghamzoo.com  
Contact person: Tim Snyder

### **TUCSON**

Reid Park Zoo  
1100 S Randolph Way  
Tucson, AZ USA 85716  
Phone: (520)791-3204 x11  
Email: Scott.Barton@tucsonaz.gov  
Contact person: Scott Barton

### **PALM DES**

Living Desert  
47900 Portola Ave.  
Palm Desert, CA USA 92260  
Phone: (760)346-5694  
Email: kmills@livingdesert.org  
Contact person: Kerianne Mills

### **PHOENIX**

Phoenix Zoo  
435 N. Galvin Parkway  
Phoenix, AZ 85008  
Phone: (602) 273-1341  
Email: jsills@thephxzoo.com  
Contact person: John Sills

### **SD-WAP**

San Diego Wild Animal Park  
15500 San Pasqual Valley Rd  
Escondido, CA USA 92027  
Phone: (760)738-5077  
Email: mmace@sandiegozoo.org  
Contact person: Michael Mace

### **COLO SPRG**

Cheyenne Mountain Zoological Park  
4250 Cheyenne Mountain Zoo Rd.  
Colorado Springs, CO USA 80906

Phone: (719)633-9925 x113  
Email: [tracyleeds@cmzoo.org](mailto:tracyleeds@cmzoo.org)  
Contact person: Tracy Leeds

**DENVER**

Denver Zoological Gardens  
Denver, CO USA 80205-4899  
Phone: (303)376-4914  
Email: [jazua@denverzoo.org](mailto:jazua@denverzoo.org)  
Contact person: John Azua

**NZP-WASH**

Smithsonian National Zoological Park  
3001 Connecticut Ave. NW  
Washington, DC USA 20008-2537  
Phone: (202)633-3088  
Email: [hallagers@si.edu](mailto:hallagers@si.edu)  
Contact person: Sara Hallager

**NASHVILLE**

Nashville Zoo, Inc.  
3777 Nolensville Road  
Nashville, TN 37211  
Phone: (615)833-2248 ext. 155  
Contact person: Joe deGraauw

**JACKSONVL**

Jacksonville Zoo and Gardens  
370 Zoo Parkway  
Jacksonville, FL USA 32218-5769  
Phone: (904)757-4463 x173  
Email: [bearhulld@jaxzoo.org](mailto:bearhulld@jaxzoo.org)  
Contact person: Donna Bear-Hull

**METROZOO**

Miami Metrozoo  
12400 SW 152<sup>nd</sup> Street  
One Zoo Boulevard  
Miami, FL USA 33177-1402  
Phone: (305)251-0400 x251  
Email: [JDUN@miamidade.gov](mailto:JDUN@miamidade.gov)  
Contact person: Jim Dunster

**YULEE**

White Oak Conservation Center  
White Oak Plantation  
Yulee, FL USA 32097-2145  
Phone: (904)225-3308  
Email: mtaylor@wogilman.com  
Contact person: Mike Taylor

**ATLANTA**

Zoo Atlanta  
800 Cherokee Ave. SE  
Atlanta, GA USA 30315-1440  
Phone: (404)624-5691  
Email: jballance@zooatlanta.org  
Contact person: James Ballance

**SEDGWICK**

Sedgwick County Zoo  
5555 Zoo Blvd.  
Wichita, KS USA 67212-1698  
Phone: (316)660-8235  
Email: jbarkowski@scz.org  
Contact person: Joe Barkowski

**AUDUBON**

Audubon Zoo  
PO Box 4327  
New Orleans, LA USA 70178-4327  
Phone: (504)212-5124  
Email: lshoen@auduboninstitute.org  
Contact person: Lee Schoen

**FRANKLINP**

Franklin Park Zoo  
1 Franklin Park Rd.  
Boston, MA USA 02121-3252  
Phone: (617)989-2052  
Email: fbeall@zoonewengland.com  
Contact person: Fred Beall

**KANSASCTY**

Kansas City Zoo  
6800 Zoo Drive  
Kansas City, MO USA 64132-1711  
Phone: (816)513-5700  
Email: Joni\_Hartman@fotzkc.org  
Contact person: Joni Hartman

**TOLEDO**

The Toledo Zoo  
PO Box 140130  
Toledo, OH USA 43609  
Phone: (419)385-5721 x2008  
Email: robert.webster@toledozoo.org  
Contact person: Robert Webster

**DALLAS**

Dallas Zoo  
650 South R.L. Thornton Freeway  
Dallas, TX USA 75203-3034  
Phone: (214)670-6839  
Email: CDBrown@mail.ci.dallas.tx.us  
Contact person: Chris Brown

**FORTWORTH**

Fort Worth Zoo  
1989 Colonial Pkwy.  
Ft Worth, TX USA 76110-6640  
Phone: (817)759-7170  
Email: kunger@fortworthzoo.org  
Contact person: Katey Unger

**WACO**

Cameron Park Zoo  
1701 N. 4th St.  
Waco, TX USA 76707-2463  
Phone: (254)750-8435  
Email: catherton@ci.waco.tx.us  
Contact person: Carolyn Atherton