Delamar Est. m 1980

Population Information for Delamar WHMP

This population sample was taken from a removal program conducted in the summer of 1980. These animals do not constitute a cohort. However, for the purpose of population projections, the sample is being considered as a cohort.

Mortality of a true cohort can be presented in a life table as a progressively depleting group. The sample considered here does not follow this pattern. Therefore, it was necessary to construct a survival curve and fabricate a continuously declining line. This was accomplished by combining the age classes into groups of four (graph).

The information gained from the survivorship curve was presented in the life history table.

Life history projection tables were constructed from the information gained from the life table. Life history projection table #1 depicts a finite rate of increase of 1.11 at a stable population age distribution of nine years. First breeding age of females in this table is three. Table #2 depicts a 1.06 finite rate of increase when the stable age distribution is reached at age 12. First breeding age of females in table #2 is four years.

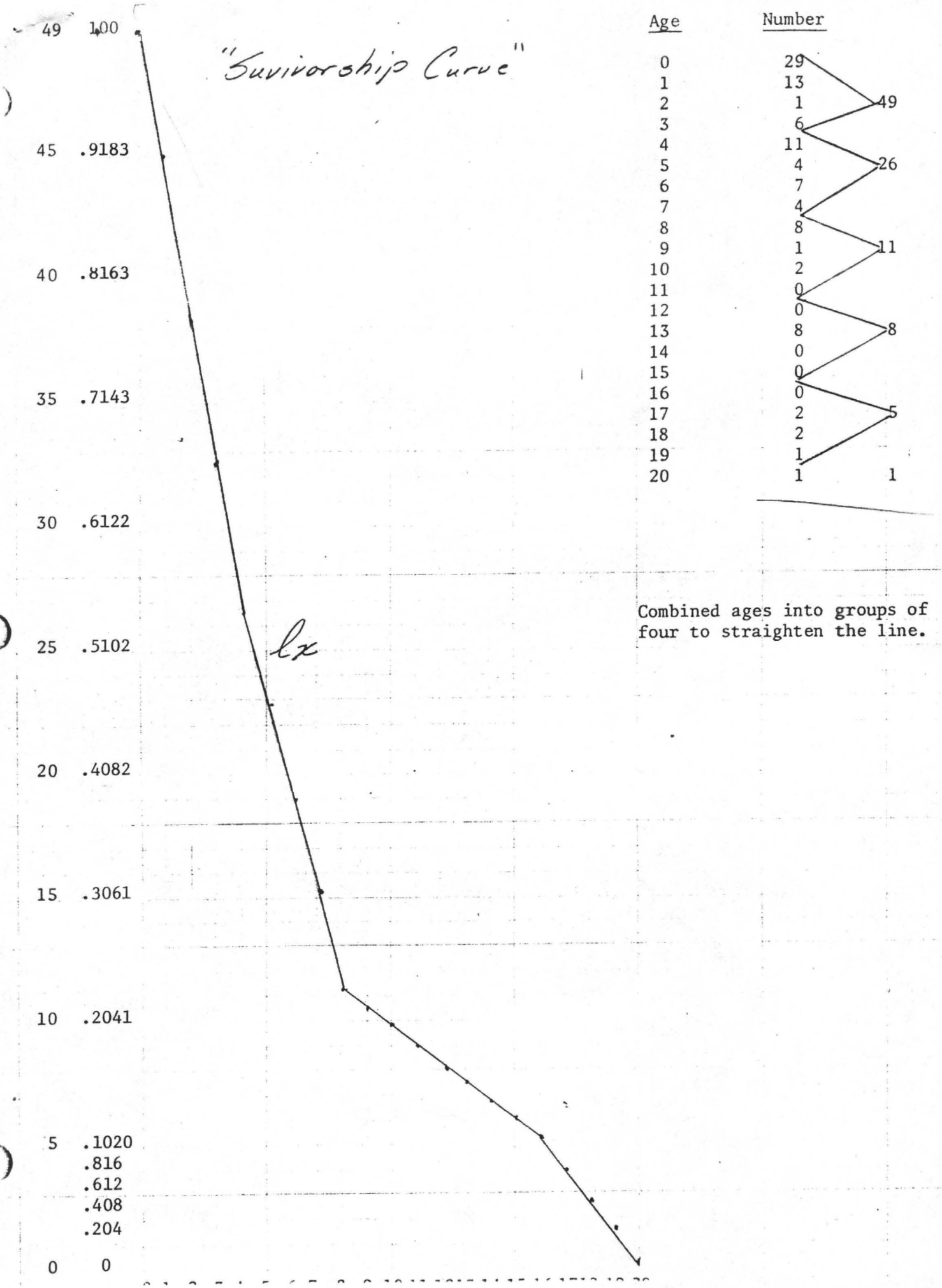
Interestingly, only one of the twenty wet mares captured was under four years of age. This fact supports the 1.06 finite rate of increase projected by table #2.

inventory

1980
Summer. reduct.
101 horses

POPULATION AGE STRUCTURE

	Age	# of Males	# of Females
	0	12	17
	1	9	4
Pre-reproductive	2	1	0
49%	3	2	4
	4	3	8
	5	1	3
	6	3	4
	7	0	4
Reproductive	8	2	6
45%	9	1	0
	10	0	2
	11	0	0
	12	0	0
	13	2	6
	14	0	0
	15	0	0
	16	0	0
Post-reproductive	17	1	1
6%	18	1	1
	19	0	1
	20	0	1
		38	62



Age	Number	
0	29	
1	13	
2	1	49
3	6	
4	11	
5	4	26
6	7	
7	4	
8	8	
9	1	11
10	2	
11	0	
12	0	
13	8	8
14	0	
15	0	
16	0	
17	2	5
18	2	
19	1	
20	1	1

Combined ages into groups of four to straighten the line.

"Life History Table"

	N	Dx	lx	dx	qx	px	Mx	lxMx
0	100.00	10.21	1.000	.1021	.1021	.8979	0	0
1	89.79	12.75	.8979	.1275	.1420	.8580	0	0
2	77.04	11.74	.7704	.1174	.1524	.8476	0	0
3	65.30	12.24	.6530	.1224	.1874	.8126	.5	.3265
4	53.06	7.65	.5306	.0765	.1442	.8558	.5	.2653
5	45.41	7.66	.4541	.0766	.1687	.8313	.5	.2271
6	37.75	7.14	.3775	.0714	.1891	.8109	.5	.1888
7	30.61	8.16	.3061	.0816	.2666	.7334	.5	.1531
8	22.45	1.53	.2245	.0153	.0682	.9318	.5	.1123
9	20.92	1.02	.2092	.0102	.0488	.9512	.5	.1046
10	19.90	2.04	.1990	.0204	.1025	.8975	.5	.0995
11	17.86	1.54	.1786	.0154	.0862	.9138	.5	.0893
12	16.32	1.53	.1632	.0153	.0938	.9062	.5	.0816
13	14.79	1.02	.1479	.0102	.0690	.9310	.5	.0740
14	13.77	1.53	.1377	.0153	.1111	.8889	.5	.0689
15	12.24	2.04	.1224	.0204	.1667	.8333	.5	.0612
16	10.20	2.55	.1020	.0255	.2500	.7500	.5	.0510
17	7.65	2.55	.0765	.0255	.3333	.6667	.5	.0383
18	5.10	2.55	.0510	.0255	.5000	.5000	.5	.0255
19	2.55	2.55	.0255	.0255	1.000	00	.5	.0128
20	00	00						

GRR = 8.5

R_O = 1.98

Projection Table #1

	0	1	2	3	4	5	6	7	8	9	10	11	12
0	50	40.63	34.77	45.23	49.97	50.68	58.68	66.78	72.15	80.105	89.71	99.57	110.19
1		44.90	36.48	31.22	40.61	44.87	45.51	52.69	59.96	64.78	71.93	80.55	89.40
2			38.52	31.30	26.79	34.85	38.50	39.04	45.21	51.45	55.58	61.71	69.11
3	100			32.65	26.53	22.70	29.54	32.63	33.09	38.32	43.61	47.11	52.31
4		81.26			26.53	21.56	18.45	24.00	26.52	26.89	31.14	35.43	38.28
5			69.54			22.71	18.45	15.79	20.54	22.69	23.01	26.65	30.33
6				57.81			18.88	15.34	13.13	17.07	18.86	19.13	22.15
7					46.88			15.31	12.44	10.64	13.85	15.30	15.51
8						34.38			11.23	9.12	7.81	10.15	11.22
9							32.04			10.46	8.50	7.27	9.46
10								30.47			9.95	8.09	6.92
11									27.35			8.93	7.26
12										24.99	22.65	21.09	8.16
Totals	150	166.79	179.31	198.21	217.31	231.75	260.05	292.05	321.62	356.52	396.6	440.98	489.05
λ	0	1.11	1.08	1.11	1.10	1.07	1.12	1.12	1.10	1.11	1.11	1.11	1.11

6-11 %

Projection Table #2

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14
0	50	42.79	35.57	28.85	34.43	42.43	47.35	48.31	49.96	53.96	59.56	59.63	63.54	67.17	71.56
1		44.90	38.42	31.94	25.90	30.91	38.10	42.52	43.38	44.86	48.45	53.48	53.54	57.05	60.31
2			38.52	32.97	27.40	22.23	26.52	32.69	36.48	37.22	38.49	41.57	45.89	45.94	48.95
3				32.65	27.94	23.23	18.84	22.48	27.71	30.92	31.55	32.62	35.24	38.89	38.94
4	100				26.53	22.71	18.87	15.31	18.27	22.51	25.13	25.64	26.51	28.64	31.61
5		85.58				22.71	19.43	16.15	13.10	15.63	19.27	21.51	21.94	22.69	24.51
6			71.14				18.88	16.15	13.43	10.89	12.995	16.02	17.89	18.24	18.86
7				57.69				15.31	13.10	10.89	8.83	10.54	12.99	14.51	14.79
8					42.31				11.23	9.61	7.99	6.48	7.73	9.53	10.64
9						39.42				10.46	8.95	7.45	6.03	7.20	8.88
10							37.50				9.95	8.51	7.08	5.74	6.85
11								33.66					7.64	6.35	5.15
12									30.76	27.88	25.95	23.07	19.22	6.98	5.81
Totals	150	173.27	183.65	184.1	184.51	203.64	225.49	242.58	257.42	274.83	297.12	306.52	325.24	343.35	362.8
λ	0	1.16	1.06	1.00	1.00	1.10	1.11	1.08	1.06	1.07	1.08	1.03	1.06	1.06	1.06

Elgin ~~6400~~ AUMs
2000 AUMs
2 operators (Act. preference) Class I

N. Boundary # 93
E. Rainbow Canyon
W. Paiute line
S. Cain Springs

191,570 acres

1000 acres
mostly mining claims

(Blackbrush - climax
fire produces - Treon)

6 maj veg comm.
53% juniper

(1973-89) will use 8%
(73-74-77) using 10% ?
328 - 1981 pop est.

MFP - (170 pec.)
57 Delamar (est 116)
(81 removed) 101 Oak Springs
12 Elgin

Ranch.
Oak Springs allot
trend - upward

Frequency - Sweller.

250/

Delamar Allot Plan - 82

Oak Springs
570 cattle Spring & Summer rotation
every 3 yr the pasture is rested

Warm Springs
467 patat