

Table 1 (plus '91). NEST SUCCESS. The number of nests on each site and the percent of those nests that fledged at least one nestling. Data from all nests with at least one egg.

	Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WESTERN BLUEBIRDS										
1988										
# nests	7	4	10	8	4	3	5	2		
Success	43%	100%	60%	63%	75%	67%	60%	100%		
1989										
# nests	11	5	16	8	5	7	8	3		
Success	100%	100%	68%	88%	80%	71%	75%	100%		
1990										
# nests	21	14	27	14	12	8	7	1	5	3
Success	57%	79%	48%	64%	58%	63%	71%	100%	100%	33%
1991										
# nests	23	18	27	13	8	9	-	-	8	7
Success	52%	67%	52%	54%	63%	56%	-	-	75%	57%
MOUNTAIN BLUEBIRDS										
1988										
# nests	2	8	6	5	1	3	0	1		
Success	50%	88%	50%	20%	100%	33%	0%	100%		
1989										
# nests	2	13	6	8	3	6	1	2		
Success	100%	85%	33%	88%	100%	83%	100%	100%		
1990										
# nests	3	14	8	18	9	2	1	0	1	0
Success	0%	57%	63%	61%	33%	50%	100%	0%	100%	0%
1991										
# nests	0	20	8	18	2	1	-	-	2	4
Success	0%	40%	63%	44%	50%	0%	-	-	100%	100%
ALL BLUEBIRDS										
1988										
# nests	10	12	17	13	5	6	5	3		
Success	40%	92%	53%	46%	80%	50%	60%	100%		
1989										
# nests	15	21	25	17	11	17	10	6		
Success	93%	76%	64%	88%	82%	65%	70%	83%		
1990										
# nests	32	43	48	37	26	17	12	7	9	5
Success	50%	53%	48%	59%	46%	47%	58%	71%	78%	40%
1991										
# nests	31	48	44	43	16	16	-	-	13	13
Success	42%	42%	43%	37%	63%	31%	-	-	69%	69%

[Table 1 (plus '91) cont.]

Total number of nests with at least one egg, and % of that total that fledged at least one nestling.

	WHEELER COUNTY SITES		ALL BLUEBIRDS
	WESTERN BLUEBIRDS	MOUNTAIN BLUEBIRDS	
1988	43 nests, 65%	26 nests, 58%	71 nests, 61%
1989	63 nests, 83%	41 nests, 80%	122 nests, 76%
1990	104 nests, 61%	55 nests, 54%	223 nests, 52%
		Wheeler plus Grant County sites	237 53%
1991	98 nests, 56%	49 nests, 49%	198 nests, 44%
		Wheeler plus Grant County sites	224 45%

(Table 8 plus 1991 and Grant County, 1990, cont.) NUMBER OF EGGS PER FULL CLUTCH. The mean number of eggs in all nests where incubation was initiated and where number of eggs was known. WB = Western Bluebird; MB = Mountain Bluebird; BB = all bluebirds including unknown bluebird species; \* = data from  $\leq 3$  nests; - = no data.

		(1990)			
Grant County:	WB	5.67	(n = 6)	(s = 0.52)	
	MB	5.00	(n = 1)		
	BB	5.63	(n = 8)	(s = 0.52)	
All sites:	WB	5.49	(n = 75)	(s = 0.86)	
	MB	5.00	(n = 35)	(s = 1.06)	
	BB	5.36	(n = 119)	(s = 0.93)	

		1991									
		Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WB	E #M	4.8	4.9	5.0	5.1	4.9	5.5	-	-	5.0*	4.6
MB	E #M	-	4.8	4.4	4.5	4.0*	-	-	-	4.0*	4.7*
BB	E #M	4.8	4.9	4.9	4.7	4.8	5.6	-	-	4.8	4.6

Wheeler County:	WB	4.95	(n = 79)	(s = 0.88)	
	MB	4.55	(n = 31)	(s = 0.81)	
	BB	4.87	(n = 121)	(s = 0.86)	
Grant County:	WB	4.67	(n = 12)	(s = 0.78)	
	MB	4.50	(n = 4)	(s = 0.58)	
	BB	4.67	(n = 12)	(s = 0.78)	
All sites:	WB	4.93	(n = 87)	(s = 0.87)	
	MB	4.54	(n = 35)	(s = 0.78)	
	BB	4.85	(n = 133)	(s = 0.85)	

plus Grant County and 1991]

[Table 4. MEAN NUMBER OF FLEDGLINGS PER SUCCESSFUL NEST. The mean number of fledglings from all nests that fledged at least one nestling and where number of fledglings was known. WB = Western Bluebird; MB = Mountain Bluebird; BB = all bluebirds including unknown bluebirds; \* = data from  $\leq 3$  nests; - = no data.

		1988									
		Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WB F #M		4.7*	5.0*	4.0	4.2	4.0*	5.0*	4.0*	5.0*		
MB F #M		2.0*	4.0	3.3*	-	5.0*	5.0*	-	6.0*		
BB F #M		4.0	4.4	3.8	4.2	4.3*	5.0*	4.0*	5.5*		
Wheeler County:	WB	4.33	(n = 24)	(s = 1.27)							
	MB	4.00	(n = 12)	(s = 1.65)							
	BB	4.22	(n = 36)	(s = 1.40)							
		1989									
		Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WB F #M		4.8	4.8	4.0	4.2	4.5*	3.8	4.0	5.7*		
MB F #M		4.0*	4.3	-	4.0	4.7*	4.8	2.0*	5.0*		
BB F #M		4.7	4.4	3.9	4.1	4.6	4.2	3.7	5.5		
Wheeler County:	WB	4.39	(n = 44)	(s = 1.33)							
	MB	4.27	(n = 26)	(s = 1.22)							
	BB	4.32	(n = 72)	(s = 1.30)							
		1990									
		Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WB F #M		4.5	4.4	4.4	4.4	4.4	3.8	4.3	3.0*	4.3	5.0*
MB F #M		-	3.1	4.0	3.6	2.7*	2.0*	3.0*	-	5.0*	-
BB F #M		4.5	3.6	4.4	4.0	3.9	3.5	4.0	3.5*	4.4	5.0*
Wheeler County:	WB	4.36	(n = 58)	(s = 1.47)							
	MB	3.38	(n = 29)	(s = 1.35)							
	BB	3.99	(n = 95)	(s = 1.49)							
Grant County:	WB	4.40	(n = 5)	(s = 0.89)							
	MB	5.00	(n = 1)								
	BB	4.50	(n = 6)	(s = 0.84)							
		1991									
		Ne	St	Ca	Mo	Sk	PP	SP	BC	MC	CG
WB F #M		3.8	3.4	3.6	4.7	3.5	3.8	-	-	4.0	3.5
MB F #M		-	3.8	3.4	3.4	-	-	-	-	2.0*	2.5
BB F #M		3.8	3.6	3.5	3.9	3.7	3.8	-	-	3.3	3.0
Wheeler County:	WB	3.74	(n = 53)	(s = 1.20)							
	MB	3.52	(n = 21)	(s = 1.21)							
	BB	3.68	(n = 77)	(s = 1.19)							
Grant County:	WB	3.75	(n = 8)	(s = 1.16)							
	MB	2.33	(n = 6)	(s = 0.52)							
	BB	3.14	(n = 14)	(s = 1.17)							

1991 DIET SAMPLES - COMPARISON OF SPECIES, COUNTIES, SEASONS.  
 TOT # = total number of food items observed being delivered to nestlings; GH = grasshopper; CR = cricket; SPI = spider; CIC = cicada; BTL = beetle (adult or larva); LEP = butterfly, moth, caterpillar; FLY = flying insect (Diptera & Hymenoptera); MIL = millipede; BUG = Hemiptera; DRA = dragonfly; BER = Squaw Currant berry; UNCL = unclassified but not a grasshopper or cricket; All Orth. = grasshoppers plus crickets, total number in ().

JUNE													
TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - GRANT COUNTY													
49	12%	31%	16%	-	14%	18%	-	-	-	-	-	-	8%
MOUNTAIN BLUEBIRD - GRANT COUNTY													
25	12%	28%	44%	-	4%	8%	-	-	-	-	-	4%	-
ALL BLUEBIRDS - GRANT COUNTY													
74	12%	30%	26%	-	11%	15%	-	-	-	-	-	1%	5%
WESTERN BLUEBIRD - WHEELER COUNTY													
173	6%	29%	12%	13%	20%	7%	2%	4%	>1%	>1%	-	-	6%
MOUNTAIN BLUEBIRD - WHEELER COUNTY													
14	0%	50%	14%	7%	7%	7%	7%	7%	-	-	-	-	-
ALL BLUEBIRDS - WHEELER COUNTY													
187	6%	31%	12%	12%	19%	7%	2%	4%	1%	1%	-	-	5%
ALL BLUEBIRDS - ALL STUDY AREAS													
261	8%	31%	All Orth. (100)		38%								

LATE (JULY AND AUGUST)													
TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - GRANT COUNTY													
1	-	-	-	-	-	-	-	100%	-	-	-	-	-
MOUNTAIN BLUEBIRD - GRANT COUNTY													
1	-	-	-	-	-	-	-	100%	-	-	-	-	-
ALL BLUEBIRDS - GRANT COUNTY													
2	-	-	-	-	-	-	-	100%	-	-	-	-	-
WESTERN BLUEBIRD - WHEELER COUNTY													
308	41%	5%	13%	3%	4%	9%	19%	3%	>1%	>1%	-	-	3%
MOUNTAIN BLUEBIRD - WHEELER COUNTY													
85	52%	7%	7%	-	2%	15%	2%	2%	4%	-	1%	2%	5%
ALL BLUEBIRDS - WHEELER COUNTY													
393	43%	5%	12%	2%	3%	10%	16%	3%	1%	>1%	>1%	1%	4%
ALL BLUEBIRDS - ALL STUDY AREAS													
395	43%	5%	All Orth. (190)		48%								

ALL SEASONS													
TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - GRANT COUNTY													
50	12%	30%	16%	-	14%	18%	-	2%	-	-	-	-	8%
MOUNTAIN BLUEBIRD - GRANT COUNTY													
26	11%	27%	42%	-	4%	8%	-	4%	-	-	-	4%	-
ALL BLUEBIRDS - GRANT COUNTY													
76	12%	29%	25%	-	11%	14%	-	3%	-	-	-	1%	5%



1990 DIET SAMPLES - COMPARISON OF SPECIES, COUNTIES, SEASONS.

JUNE

TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - WHEELER COUNTY													
94	52%	28%	3%	0	6%	5%	0	4%	0	1%	0	0	0
MOUNTAIN BLUEBIRD - WHEELER COUNTY													
20	45%	15%	10%	0	0	10%	0	20%	0	0	0	0	0
ALL BLUEBIRDS - WHEELER COUNTY													
114	51%	25%	4%	0	5%	6%	0	7%	0	1%	0	0	0
NO EARLY DIET SAMPLES FROM GRANT COUNTY													
ALL BLUEBIRDS - ALL STUDY SITES													
114	All Orth. (87)		76%										

JULY

TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - WHEELER COUNTY													
177	69%	10%	5%	2%	3%	4%	2%	1%	<1%	0	0	0	4%
MOUNTAIN BLUEBIRD - WHEELER COUNTY													
6	67%	0	0	0	0	0	0	33%	0	0	0	0	0
ALL BLUEBIRDS - WHEELER COUNTY													
183	69%	9%	4%	2%	3%	4%	2%	2%	<1%	0	0	0	4%
WESTERN BLUEBIRD - GRANT COUNTY													
27	100%	0	0	0	0	0	0	0	0	0	0	0	0
MOUNTAIN BLUEBIRD - GRANT COUNTY													
40	88%	5%	0	0	0	0	0	5%	0	0	0	0	3%
ALL BLUEBIRDS - GRANT COUNTY													
67	93%	3%	0	0	0	0	0	3%	0	0	0	0	1%
ALL BLUEBIRDS - ALL STUDY AREAS													
250	All Orth. (208)		83%										

ALL SEASONS

TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
WESTERN BLUEBIRD - WHEELER COUNTY													
271	63%	16%	4%	1%	4%	4%	1%	2%	<1%	<1%	0	0	3%
MOUNTAIN BLUEBIRD - WHEELER COUNTY													
26	50%	12%	8%	0	0	8%	0	23%	0	0	0	0	0
ALL BLUEBIRDS - WHEELER COUNTY													
297	62%	15%	4%	1%	4%	5%	1%	4%	<1%	<1%	0	0	2%
WESTERN BLUEBIRD - GRANT COUNTY													
27	100%	0	0	0	0	0	0	0	0	0	0	0	0
MOUNTAIN BLUEBIRD - GRANT COUNTY													
40	88%	5%	0	0	0	0	0	5%	0	0	0	0	3%
ALL BLUEBIRDS - GRANT COUNTY													
67	93%	3%	0	0	0	0	0	3%	0	0	0	0	1%
WESTERN BLUEBIRD - ALL STUDY SITES													
298	67%	14%	4%	1%	4%	4%	1%	2%	<1%	<1%	0	0	2%
MOUNTAIN BLUEBIRD - ALL STUDY SITES													
66	73%	8%	3%	0	0	3%	0	12%	0	0	0	0	2%
ALL BLUEBIRDS - ALL STUDY SITES													
364	68%	13%	4%	<1%	3%	4%	1%	4%	<1%	<1%	0	0	2%
		All Orth. (295)		81%									

1989 DIET SAMPLES - COMPARISON OF SPECIES, COUNTIES, SEASONS.

TOT # = total number of food items observed being delivered to nestlings; GH = grasshopper; CR = cricket; SPI = spider; CIC = cicada; BTL = beetle (adult or larva); LEP = butterfly, moth, caterpillar; FLY = flying insect (Diptera & Hymenoptera); MIL = millipede; BUG = Hemiptera; DRA = dragonfly; BER = Squaw Currant berry; UNCL = unclassified but not a grasshopper or cricket; All Orth. = grasshoppers plus crickets, total number in ().

ALL BLUEBIRDS - WHEELER COUNTY - JULY

TOT #	GH	CR	SPI	CIC	BTL	LEP	FLY	ANT	MIL	BUG	DRA	BER	UNCL
125	76%	0	4%	0	1%	2%	2%	2%	0	0	0	0	14%



## GRASSHOPPER DENSITIES - 1991

STUDY SITES (WITH NEST BOXES)

NERI June counts: 0, 0, 0, 1, 7, 0, 0, 0, 0, 0  
 Mean: 0.8 (n = 10, s = 2.2)  
 July counts: 8.5, 0.5, 10.5, 23, 9, 4.5, 3, 2.5, 2  
 Mean: 7.1 (n = 9, s = 6.9)

STEIWER June counts: 0, 0, 0, 0, 0, 3.5, 0, 0.5, 0, 0.5, 0, 0  
 Mean: 0.4 (n = 12, s = 1.0)  
 July counts: 1, 0, 0.5, 1, 0, 0, 1, 0  
 Mean: 0.4 (n = 8, s = 0.5)

CAMPBELL June counts: 0, 0, 0, 0, 1, 2, 0, 0, 0, 0, 13, 0  
 Mean: 1.3 (n = 12, s = 3.7)  
 July counts: 17.5, 4.5, 3, 10, 15, 26, 39.5, 26.5,  
 17, 19.5  
 Mean: 17.9 (n = 10, s = 11.0)

MORRIS June counts: 0, 0, 0, 0, 0.5, 0, 0.5, 0, 0, 0.5  
 Mean: 0.2 (n = 10, s = 0.2)  
 July counts: 2, 1, 9, 4.5, 2.5, 4.5, 5, 1  
 Mean: 3.7 (n = 8, s = 2.7)

SKITES June counts: --  
 July counts: 5, 12.5, 4, 6.5, 1, 4, 17.5, 7.5  
 Mean: 7.3 (n = 8, s = 5.3)

WHEELER COUNTY STUDY SITES COUNT MEAN

June: 0.7 (n = 44, s = 2.2)  
 July: 7.7 (n = 43, s = 8.9)

MURDERERS June counts: 1, 0, 0, 0, 0  
 CREEK Mean: 0.2 (n = 5, s = 0.4)  
 July counts: 4, 1, 1, 0.5, 0, 7.5, 2.5, 3  
 Mean: 2.4 (n = 8, s = 2.5)

CHICKENHOUSE June counts: 0, 0, 0, 1.5, 0, 0, 0  
 GULCH Mean: 0.2 (n = 7, s = 0.6)  
 July counts: 1.5, 5.5, 2.5, 3, 0, 1.5, 2.5, 5  
 Mean: 2.7 (n = 8, s = 1.8)

GRANT COUNTY STUDY SITES COUNT MEAN

June: 0.2 (n = 12, s = 0.5)  
 July: 2.6 (n = 16, s = 2.1)

NO-BOX SITES

CAMPBELL June counts: 0.5, 10.5, 3.5, 1.5, 1.5, 7, 1, 10.5,  
 WEST 12.5, 13, 4.5, 7, 10.5  
 Mean: 6.4 (n = 13, s = 4.6)  
 July counts: 0, 1.5, 10, 28, 17, 22, 11, 16.5  
 Mean: 13.3 (n = 8, s = 9.6)

(GRASSHOPPER DENSITIES - 1991 cont.)

(NO-BOX SITES)

HOOVER  
CANYON June counts: 0, 3.5, 0, 0, 2, 4, 3, 1  
Mean: 1.7 (n = 8, s = 1.7)  
July counts: 12, 11, 9.5, 9.5, 5.5, 10.5, 5.5, 6.5  
Mean: 8.6 (n = 8, s = 2.6)

KINZUA June counts: 21, 7.5, 3.5, 0, 2.5, 10, 7.5, 8, 5, 3,  
1.5, 4, 0  
Mean: 5.7 (n = 13, s = 5.6)  
July counts: 12.5, 18, 16, 13, 9, 18, 16.5, 21.5, 15  
Mean: 15.5 (n = 9, s = 3.7)

WHEELER COUNTY NO-BOX SITE COUNT MEAN

June: 5.0 (n = 34, s = 4.8)  
July: 12.6 (n = 25, s = 6.5)

BIG BASIN June counts: 0, 0, 0, 0, 3.5, 0.5, 3.5, 0  
Mean: 0.9 (n = 8, s = 1.6)  
July counts: 8.5, 7, 5, 6.5, 11.5, 5, 9.5, 4  
Mean: 7.1 (n = 8, s = 2.6)

BAKER CITY  
GULCH June counts: 1.5, 0, 0, 0, 0.5, 0, 0, 0  
Mean: 0.3 (n = 8, s = 0.5)  
July counts: 4, 2, 0, 6, 0.5, 2, 3, 1.5  
Mean: 2.4 (n = 8, s = 1.9)

GRANT COUNTY NO-BOX SITE COUNT MEAN

June: 0.6 (n = 16, s = 1.2)  
July: 4.8 (n = 16, s = 3.3)