

## **Appendix A. Species and the respective habitat which received priority scores by the**

New Mexico Working Group of Partners in Flight and we provide density estimates for in the Carson National Forest, summer 2003.

Highest Priority	Priority	High Responsibility
Sage Sparrow - SA	Dusky Flycatcher - PP	Western Wood-Pewee – PP
Green-tailed Towhee – PJ/MS	Green-tailed Towhee - SA	Ash-throated Flycatcher – PJ/MS, SA
Gray Flycatcher - PJ	Virginia's Warbler – PJ/MS	Cassin's Kingbird - PJ
Black-throated Gray Warbler - PJ		Plumbeous Vireo - PP
Grace's Warbler - PP		Pinyon Jay - PJ
		Juniper Titmouse - PJ
		Rock Wren - MS
		Lark Sparrow - PJ
		Dark-eyed Junco - SF

MS=Montane Shrub, PJ=Pinyon-Juniper, PP=Ponderosa Pine, SA=Sage, SF=Spruce-Fir

## **Appendix B. Low-density target species by habitat.**

Habitat	Low-density target species
ALL HABITATS	Turkey Vulture, ALL raptors, ALL galliforms, Band-tailed Pigeon, Greater Roadrunner, ALL owls, Common Nighthawk, ALL swifts, Belted Kingfisher, ALL woodpeckers (except NOFL), Olive-sided Flycatcher, Hammond's Flycatcher, Cordilleran Flycatcher, Say's Phoebe, Loggerhead Shrike, Gray Jay, Clark's Nutcracker, American Crow, ALL ravens, Tree Swallow, Northern Rough-winged Swallow, Bank Swallow, Black-capped Chickadee, Bushtit, Red-breasted Nuthatch, White-breasted Nuthatch, Brown Creeper, Rock Wren, Canyon Wren, American Dipper, Western Bluebird, Swainson's Thrush, Curve-billed Thrasher, Cedar Waxwing, MacGillivray's Warbler, Canyon Towhee, Black-throated Sparrow, Sage Sparrow, Lazuli Bunting, Pine Grosbeak, Cassin's Finch, Red Crossbill, Lesser Goldfinch, Evening Grosbeak
Aspen	Hammond's Flycatcher, Dusky Flycatcher, Orange-crowned
Alpine Tundra	White-tailed Ptarmigan, Brewer's Sparrow, Fox Sparrow, Brown-capped Rosy-Finch
Grassland	Mountain Plover, Upland Sandpiper, Long-billed Curlew, Burrowing Owl, McCown's Longspur, Chestnut-collared Longspur
Mixed Conifer	Orange-crowned Warbler
Pinyon-Juniper	Black-chinned Hummingbird, Gray Vireo, Pinyon Jay, Virginia's Warbler
Ponderosa Pine	Blue-gray Gnatcatcher, Grace's Warbler
Sage Shrubland	currently, no others
Spruce-Fir	currently, no others

**APPENDIX C. List of all bird species observed in Carson National Forest per habitat, and species totals, summer 2003.**

Common Name	Scientific Name	Total number individuals observed per habitat, summer 2003.									
		AS	AT	GR	MC	MR	PJ	PP	SA	SF	Total
Turkey Vulture	<i>Cathartes aura</i>	--	3	1	--	--	9	4	--	--	17
Cooper's Hawk	<i>Accipiter cooperii</i>	--	--	--	--	--	4	--	--	--	4
Swainson's Hawk	<i>Buteo swainsoni</i>	--	--	--	--	--	--	1	--	--	1
Red-tailed Hawk	<i>Buteo jamaicensis</i>	--	1	1	1	--	4	1	1	--	9
American Kestrel	<i>Falco sparverius</i>	1	1	--	--	--	2	--	2	--	6
Peregrine Falcon	<i>Falco peregrinus</i>	--	--	--	--	--	--	--	1	1	
Blue Grouse	<i>Dendragapus obscurus</i>	1	--	--	1	--	--	--	--	--	2
Scaled Quail	<i>Callipepla squamata</i>	--	--	--	--	--	1	--	--	--	1
Killdeer	<i>Charadrius vociferous</i>	--	--	--	--	--	1	--	--	--	1
Band-tailed Pigeon	<i>Columba fasciata</i>	--	1	--	--	--	--	--	1	2	
Mourning Dove	<i>Zenaida macroura</i>	--	--	--	7	--	49	5	10	--	71
Northern Pygmy-Owl	<i>Glaucidium gnoma</i>	--	--	--	--	--	--	--	1	--	1
Common Nighthawk	<i>Chordeiles minor</i>	--	--	--	--	--	13	1	--	--	14
White-throated Swift	<i>Aeronautes saxatalis</i>	--	--	--	--	--	12	--	--	--	12
Black-chinned Hummingbird	<i>Archilochus alexandri</i>	--	--	--	--	--	5	--	--	--	5
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>	5	--	--	2	--	3	4	2	3	19
Rufous Hummingbird	<i>Selasphorus rufus</i>	--	1	--	--	--	--	--	--	--	1
Belted Kingfisher	<i>Ceryle alcyon</i>	--	--	--	--	1	--	--	--	--	1
Acorn Woodpecker	<i>Melanerpes erythrocephalus</i>	--	--	--	--	--	--	2	--	--	2
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	11	--	--	18	2	--	1	--	6	38
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	4	--	--	10	--	--	5	--	1	20
Downy Woodpecker	<i>Picoides pubescens</i>	1	--	--	1	--	--	1	--	--	3
Hairy Woodpecker	<i>Picoides villosus</i>	1	--	1	2	1	16	5	3	4	33
American Three-toed Woodpecker	<i>Picoides dorsalis</i>	--	--	--	4	--	--	--	--	1	5
Northern Flicker	<i>Colaptes auratus</i>	11	3	1	13	2	10	7	3	2	52
Olive-sided Flycatcher	<i>Contopus cooperi</i>	--	--	--	3	--	1	--	2	--	6
Western Wood-Pewee	<i>Contopus sordidulus</i>	7	--	21	7	1	36	47	13	2	134
Hammond's Flycatcher	<i>Empidonax hammondi</i>	--	1	--	9	--	--	1	--	1	12
Dusky Flycatcher	<i>Empidonax oberholseri</i>	3	--	--	--	1	17	31	3	--	55
Gray Flycatcher	<i>Empidonax wrightii</i>	--	--	2	--	--	167	1	8	--	178
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>	--	--	--	15	25	4	3	--	7	54
Say's Phoebe	<i>Sayornis saya</i>	--	--	--	--	--	16	--	4	--	20
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	--	--	10	--	--	174	24	24	--	232
Cassin's Kingbird	<i>Tyrannus vociferans</i>	--	--	1	--	--	24	1	10	--	36
Western Kingbird	<i>Tyrannus verticalis</i>	--	--	--	--	--	--	--	1	--	1
Gray Vireo	<i>Vireo vicinior</i>	--	--	--	--	--	1	--	--	--	1
Plumbeous Vireo	<i>Vireo plumbeus</i>	--	--	6	--	--	79	32	16	--	133
Warbling Vireo	<i>Vireo gilvus</i>	31	--	--	50	25	7	9	--	19	141
Gray Jay	<i>Perisoreus canadensis</i>	--	2	--	--	--	--	--	--	7	9
Steller's Jay	<i>Cyanocitta stelleri</i>	11	1	--	10	5	6	8	--	9	50
Western Scrub-Jay	<i>Aphelocoma californica</i>	--	--	3	--	--	93	5	11	--	112
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	--	--	--	--	--	37	1	9	--	47
Clark's Nutcracker	<i>Nucifraga columbiana</i>	--	--	--	16	--	5	4	--	1	26
Black-billed Magpie	<i>Pica hudsonia</i>	--	--	1	--	--	15	--	--	--	16
American Crow	<i>Corvus brachyrhynchos</i>	--	5	--	10	3	4	1	--	4	27
Common Raven	<i>Corvus corax</i>	3	--	6	4	2	84	14	10	4	127
Horned Lark	<i>Eremophila alpestris</i>	--	--	--	--	--	1	--	--	--	1
Purple Martin	<i>Progne subis</i>	--	--	1	--	--	2	8	2	--	13
Tree Swallow	<i>Tachycineta bicolor</i>	--	--	--	--	--	--	--	1	--	1
Violet-green Swallow	<i>Tachycineta thalassina</i>	7	--	11	12	6	38	20	7	2	103
Northern Rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	--	2	--	--	--	8	--	--	--	10
Bank Swallow	<i>Riparia riparia</i>	--	--	--	--	--	--	--	1	--	1
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	--	--	--	--	--	1	--	--	--	1
Mountain Chickadee	<i>Poecile gambeli</i>	31	--	3	24	12	35	12	4	36	157
Juniper Titmouse	<i>Baeolophus ridgwayi</i>	--	--	--	--	--	150	--	2	--	152
Bushtit	<i>Psaltriparus minimus</i>	--	--	--	--	--	96	--	--	--	96
Red-breasted Nuthatch	<i>Sitta pygmaea</i>	6	--	--	4	1	4	5	--	9	29

## APPENDIX C. continued

Common Name	Scientific Name	AS	AT	GR	MC	MR	PJ	PP	SA	SF	Total
White-breasted Nuthatch	<i>Sitta carolinensis</i>	--	--	4	3	--	28	22	1	1	59
Pygmy Nuthatch	<i>Sitta Pygmaea</i>	--	--	10	2	--	1	19	--	--	32
Brown Creeper	<i>Certhia Americana</i>	4	--	--	--	--	--	5	--	5	14
Rock Wren	<i>Salpinctes obsoetus</i>	--	2	3	--	--	45	--	9	--	59
Canyon Wren	<i>Catherpes mexicanus</i>	--	--	--	--	--	3	--	--	--	3
Bewick's Wren	<i>Thryomanes bewickii</i>	--	--	--	--	--	112	2	15	--	129
House Wren	<i>Troglodytes aedon</i>	29	--	3	14	5	--	10	3	6	70
American Dipper	<i>Cinclus mexicanus</i>	--	--	--	1	--	--	--	--	--	1
Golden-crowned Kinglet	<i>Regulus satrapa</i>	6	--	--	--	4	--	--	--	--	10
Ruby-crowned Kinglet	<i>Regulus calendula</i>	26	7	--	39	1	--	--	--	23	96
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	--	--	3	--	--	42	3	10	--	58
Western Bluebird	<i>Sialia mexicana</i>	--	--	--	--	--	21	19	--	--	40
Mountain Bluebird	<i>Sialia currucoides</i>	3	16	8	2	--	20	1	8	2	60
Townsend's Solitaire	<i>Myadestes townsendi</i>	--	--	1	--	2	--	3	--	4	10
Swainson's Thrush	<i>Catharus ustulatus</i>	--	--	--	--	1	--	3	--	--	4
Hermit Thrush	<i>Catharus guttatus</i>	31	1	--	29	3	21	7	--	26	118
American Robin	<i>Turdus migratorius</i>	11	3	3	49	29	11	39	5	35	185
Northern Mockingbird	<i>Mimus polyglottos</i>	--	--	1	--	--	38	--	4	--	43
Orange-crowned Warbler	<i>Vermivora celata</i>	1	--	--	2	5	--	1	--	1	10
Virginia's Warbler	<i>Vermivora virginiae</i>	--	--	1	--	--	49	10	1	--	61
Yellow Warbler	<i>Dendroica petechia</i>	--	--	--	1	--	1	--	--	--	2
Yellow-rumped Warbler	<i>Dendroica coronata</i>	44	6	9	53	8	8	22	2	45	197
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>	--	--	--	--	--	232	6	3	--	241
Grace's Warbler	<i>Dendroica dominica</i>	--	--	1	--	--	3	34	--	--	38
MacGillivray's Warbler	<i>Oporornis tolmieei</i>	--	--	--	4	11	--	--	--	2	17
Wilson's Warbler	<i>Wilsonia pusilla</i>	--	--	--	--	--	--	--	--	1	1
Western Tanager	<i>Piranga ludoviciana</i>	31	2	4	64	8	97	30	12	24	272
Green-tailed Towhee	<i>Pipilo chlorurus</i>	4	2	16	9	1	10	2	29	2	75
Spotted Towhee	<i>Pipilo maculatus</i>	--	--	13	--	3	258	51	44	--	369
Canyon Towhee	<i>Pipilo fuscus</i>	--	--	--	--	--	2	--	--	--	2
Chipping Sparrow	<i>Spizella passerine</i>	16	--	21	9	2	182	26	30	17	303
Brewer's Sparrow	<i>Spizella breweri</i>	--	--	7	--	--	9	--	27	--	43
Vesper Sparrow	<i>Pooecetes gramineus</i>	3	23	10	--	--	52	2	45	1	136
Lark Sparrow	<i>Chondestes grammacus</i>	--	--	--	--	--	29	--	4	--	33
Sage Sparrow	<i>Amphispiza belli</i>	--	--	--	--	--	15	--	25	--	40
Song Sparrow	<i>Melospiza melodia</i>	--	--	--	1	4	2	--	--	--	7
Lincoln's Sparrow	<i>Melospiza lincolni</i>	2	--	--	--	4	--	--	--	3	9
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	--	10	--	--	--	--	--	--	4	14
Dark-eyed Junco	<i>Junco hyemalis</i>	21	--	--	12	2	4	7	--	34	80
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	3	--	14	8	7	120	41	12	1	206
Blue Grosbeak	<i>Passerina caerulea</i>	--	--	--	--	--	2	--	--	--	2
Indigo Bunting	<i>Passerina cyanea</i>	--	--	--	--	--	3	3	--	--	6
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	--	--	--	5	--	1	--	--	--	6
Western Meadowlark	<i>Strunella neglecta</i>	5	14	--	1	--	1	2	6	--	29
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	--	6	--	6	--	1	5	3	--	21
Brown-headed Cowbird	<i>Molothrus ater</i>	--	--	3	--	2	24	8	4	1	42
Pine Grosbeak	<i>Pinicola enucleator</i>	1	--	--	--	--	--	--	--	2	3
Cassin's Finch	<i>Carpodacus cassini</i>	--	--	--	2	--	1	2	--	1	6
House Finch	<i>Carpodacus mexicanus</i>	--	--	--	--	--	10	--	8	--	18
Red Crossbill	<i>Loxia curvirostra</i>	17	5	1	10	--	2	3	--	13	51
White-winged Crossbill	<i>Loxia leucoptera</i>	--	--	--	--	--	--	--	--	1	1
Pine Siskin	<i>Carduelis pinus</i>	5	1	--	16	3	4	8	--	21	58
Lesser Goldfinch	<i>Carduelis psaltria</i>	--	--	--	--	--	20	2	--	--	22
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	--	--	--	10	--	3	3	--	5	21

AS=Aspen, AT=Alpine Tundra, GR=Grassland, MC=Mixed Conifer, MR=Mid-elevation Riparian, PJ=Pinyon-Juniper, PP=Ponderosa Pine, SA=Sage Shrubland, SF=Spruce-Fir

## Appendix D. Comparison of estimated densities between Carson National Forest and Colorado, summer 2003.

Species	Habitat	Carson National Forest					Colorado				
		D	LCL	UCL	CV%	n	D	LCL	UCL	CV%	n
Mourning Dove	Pinyon-Juniper	0.0150	0.0100	0.0223	21	49	0.1125	0.0772	0.1641	19	116
Gray Flycatcher	Pinyon-Juniper	0.1640	0.1018	0.2643	25	164	0.4933	0.4096	0.5941	9	187
Ash-throated Flycatcher	Pinyon-Juniper	0.0848	0.0542	0.1328	23	165	0.1381	0.1093	0.1745	12	128
Plumbeous Vireo	Pinyon-Juniper	0.0696	0.0515	0.0941	15	79	0.1836	0.1335	0.2525	16	93
Warbling Vireo	Aspen	0.2213	0.1203	0.4070	31	31	1.1119	0.9660	1.2799	7	443
Warbling Vireo	Mixed Conifer	0.9905	0.6442	1.5229	22	50	0.4405	0.3570	0.5435	11	166
Western Scrub-Jay	Pinyon-Juniper	0.0471	0.0354	0.0628	15	93	0.0494	0.0328	0.0743	21	55
Pinyon Jay	Pinyon-Juniper	0.0034	0.0020	0.0059	29	36	0.0235	0.0159	0.0347	20	99
Common Raven	Pinyon-Juniper	0.0050	0.0036	0.0070	17	71	0.0061	0.0045	0.0084	16	76
Mountain Chickadee	Aspen	0.2989	0.1595	0.5601	32	31	0.1768	0.1344	0.2326	14	99
Mountain Chickadee	Mixed Conifer	0.6652	0.3655	1.2105	31	24	0.2617	0.1982	0.3455	14	91
Mountain Chickadee	Pinyon-Juniper	0.0472	0.0286	0.0779	26	35	0.0562	0.0341	0.0928	26	33
Juniper Titmouse	Pinyon-Juniper	0.1767	0.1372	0.2274	13	138	0.1643	0.1162	0.2324	18	62
Rock Wren	Pinyon-Juniper	0.0140	0.0092	0.0212	21	39	0.0418	0.0307	0.0569	16	79
Bewick's Wren	Pinyon-Juniper	0.0784	0.0581	0.1057	15	111	0.2667	0.2134	0.3332	11	164
House Wren	Aspen	0.1770	0.0922	0.3399	33	29	1.1267	0.9140	1.3890	11	240
Ruby-crowned Kinglet	Aspen	0.2153	0.1243	0.3728	28	26	0.1493	0.1179	0.1891	12	128
Ruby-crowned Kinglet	Mixed Conifer	0.1527	0.0938	0.2487	25	39	0.3327	0.2689	0.4117	11	183
Blue-gray Gnatcatcher	Pinyon-Juniper	0.1233	0.0742	0.2049	26	41	0.6340	0.5031	0.7990	12	102
Hermit Thrush	Aspen	0.1168	0.0583	0.2343	36	31	0.0625	0.0485	0.0804	13	131
Hermit Thrush	Mixed Conifer	0.0887	0.0466	0.1689	33	29	0.0934	0.0660	0.1323	18	119
American Robin	Mixed Conifer	0.2871	0.1922	0.4288	20	47	0.2287	0.1722	0.3038	15	111
Virginia's Warbler	Pinyon-Juniper	0.0434	0.0264	0.0712	22	44	0.1209	0.0786	0.1862	22	47
Yellow-rumped Warbler	Aspen	0.3312	0.1905	0.5760	28	44	0.7210	0.5776	0.8999	11	216
Yellow-rumped Warbler	Mixed Conifer	0.8062	0.5560	1.1689	19	53	0.6296	0.5270	0.7520	9	203
Black-throated Gray Warbler	Pinyon-Juniper	0.2227	0.1816	0.2731	10	232	0.6982	0.5545	0.8790	12	181
Western Tanager	Aspen	0.1999	0.1081	0.3697	31	31	0.1348	0.0951	0.1911	18	58
Western Tanager	Mixed Conifer	0.4281	0.2998	0.6113	18	64	0.3349	0.2724	0.4118	11	183
Western Tanager	Pinyon-Juniper	0.0434	0.0307	0.0614	18	95	0.0269	0.0169	0.0429	24	34
Green-tailed Towhee	Sage	0.1338	0.0672	0.2662	35	29	0.1316	0.0983	0.1762	15	120
Spotted Towhee	Pinyon-Juniper	0.2425	0.1958	0.3003	11	257	0.1796	0.1302	0.2477	16	91
Spotted Towhee	Sage	0.1671	0.0947	0.2947	29	44	0.0431	0.0224	0.0828	34	25
Chipping Sparrow	Pinyon-Juniper	0.1609	0.1259	0.2056	13	181	0.3956	0.3225	0.4852	10	202
Brewer's Sparrow	Sage	0.0935	0.0524	0.1666	30	27	0.7879	0.6638	0.9351	9	524
Vesper Sparrow	Pinyon-Juniper	0.0173	0.0100	0.0299	28	52	0.0292	0.0185	0.0460	23	50
Vesper Sparrow	Sage	0.1278	0.0770	0.2119	26	45	0.2923	0.2263	0.3775	13	197
Lark Sparrow	Pinyon-Juniper	0.0292	0.0154	0.0555	33	29	0.0239	0.0143	0.0399	26	36
Sage Sparrow	Sage	0.0735	0.0332	0.1629	41	23	0.0678	0.0450	0.1023	21	63

D=Density in birds/hectare; LCL=lower confidence limit on D; UCL=upper confidence limit on D; CV=coefficient of variation on D; n=number of observations