

## Common Raven

Common Ravens have adapted to virtually every habitat in its range and in 2004 RMBO recorded this species in every transect habitat (Fig. 27; Table 22) and, as in 2003, were able to provide a density estimate for PJ (Table 22). We recorded 78 (68 independent detections) in PJ and 32 (13 independent detections) in PP in 2004.

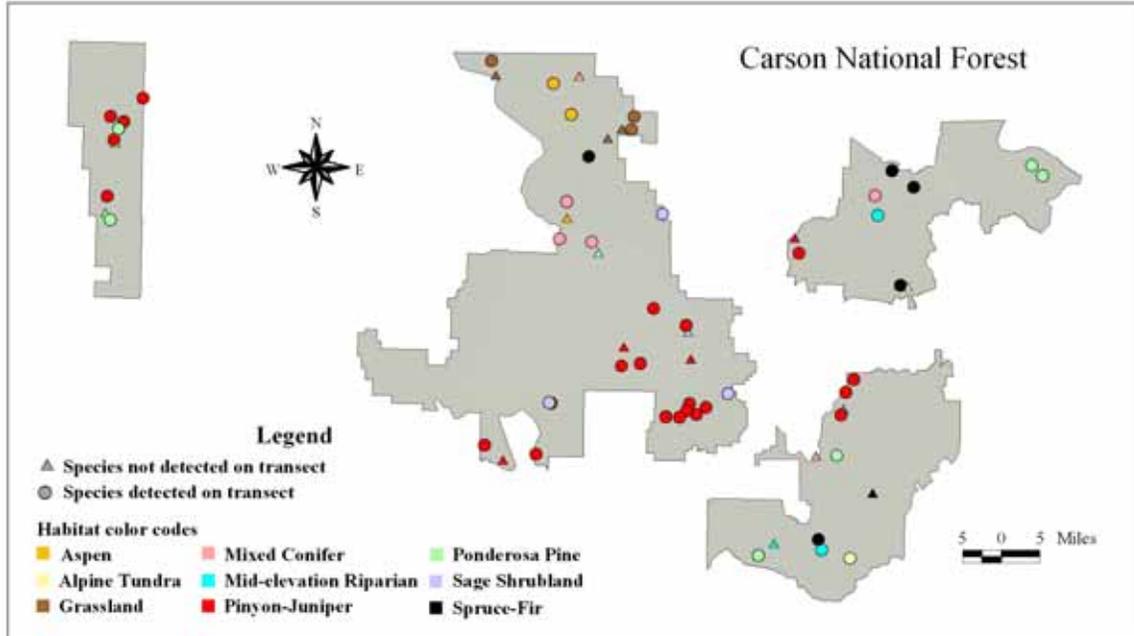


Figure 27. Distribution of transects on which Common Raven was detected in the Carson National Forest, Summer 2004.

Table 22. Habitat-specific density estimates for Common Raven in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	4
AT	ID	--	--	--	1
GR	ID	--	--	--	3
MC	ID	--	--	--	10
MR	ID	--	--	--	3
PJ	0.008	0.004	0.015	32.4%	40
PP	ID	--	--	--	32
SA	ID	--	--	--	7
SF	ID	--	--	--	12

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Horned Lark

In the CNF, this species breeds in barren grassy areas with minimal cover (Fig. 28). This year we are able to provide a density estimate in GR, where we detected 50 individuals (43 independent detections; Table 23). In 2003, we detected only one Horned Lark on a PJ transect.

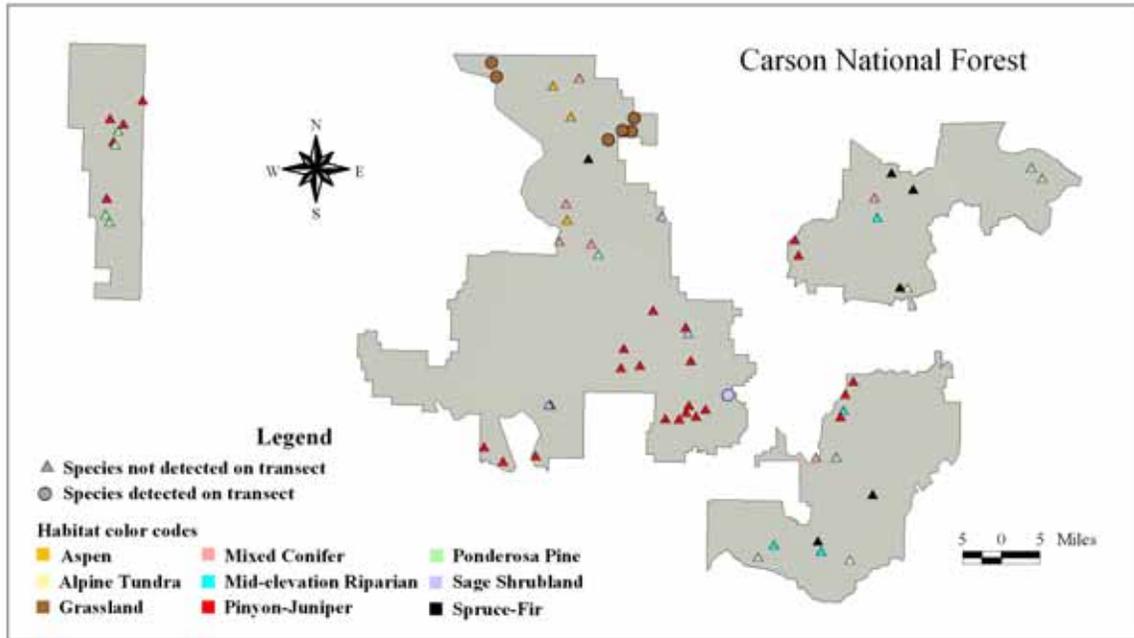


Figure 28. Distribution of transects on which Horned Lark was detected in the Carson National Forest, Summer 2004.

Table 23. Habitat-specific density estimates for Horned Lark in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
GR	0.153	0.078	0.299	31.6%	43
SA	ID	--	--	--	1

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Purple Martin

In the CNF, this species is encountered almost exclusively in the Jicarilla district (Fig. 29). We detected Purple Martins entering nest cavities in the enormous Ponderosa Pine snags found in this region. Field staff recorded 66 Purple Martins on transects and we are able to provide a density estimate in Ponderosa Pine where we detected 55 individuals (25 independent detections; Table 24). We also recorded 10 individuals on Piñon-Juniper transects (all in the Jicarilla region) and a single individual on an Aspen transect near San Antonio Mountain.

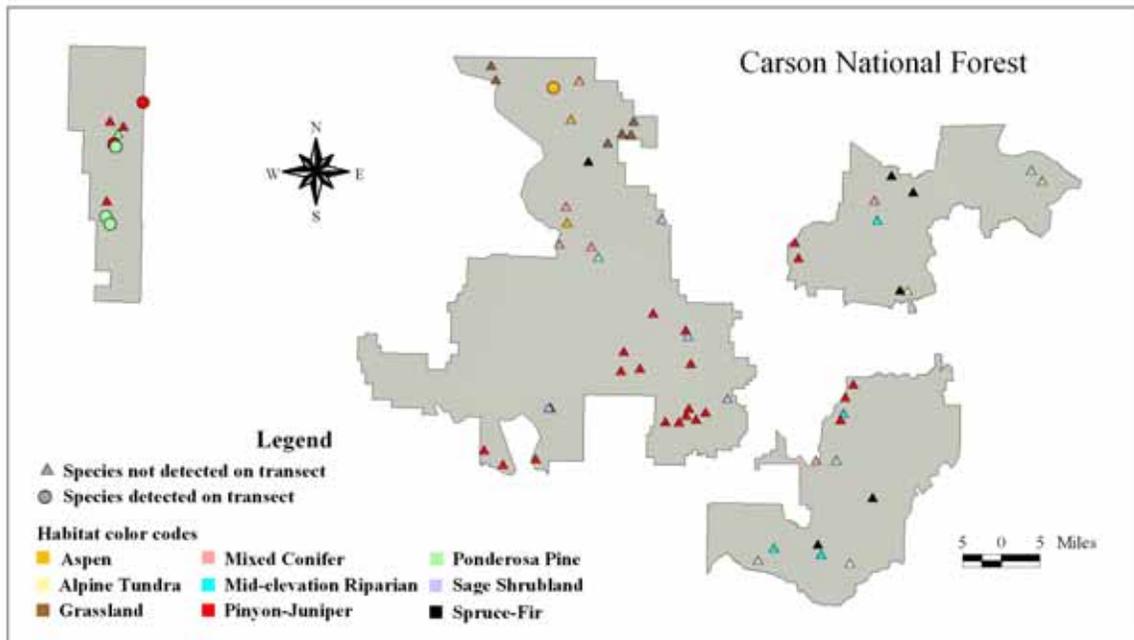


Figure 29. Distribution of transects on which Purple Martin was detected in the Carson National Forest, Summer 2004.

Table 24. Habitat-specific density estimates for Purple Martin in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	1
PJ	ID	--	--	--	10
PP	0.190	0.040	0.906	81%	25

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Violet-green Swallow

This swallow will nest in a variety of situations, most often in cliffs, but also in tree cavities, particularly Ponderosa Pine snags. This season, we are able to provide density estimates in PJ (n=110 individuals in 56 detections) and PP (107 individuals in 50 detections; Figs. 30 and 31; Table 25). We recorded 33 individuals and 17 independent detections in MC this season. This species is listed as a High Responsibility management species in Mixed Conifer habitat by the NMPIF.

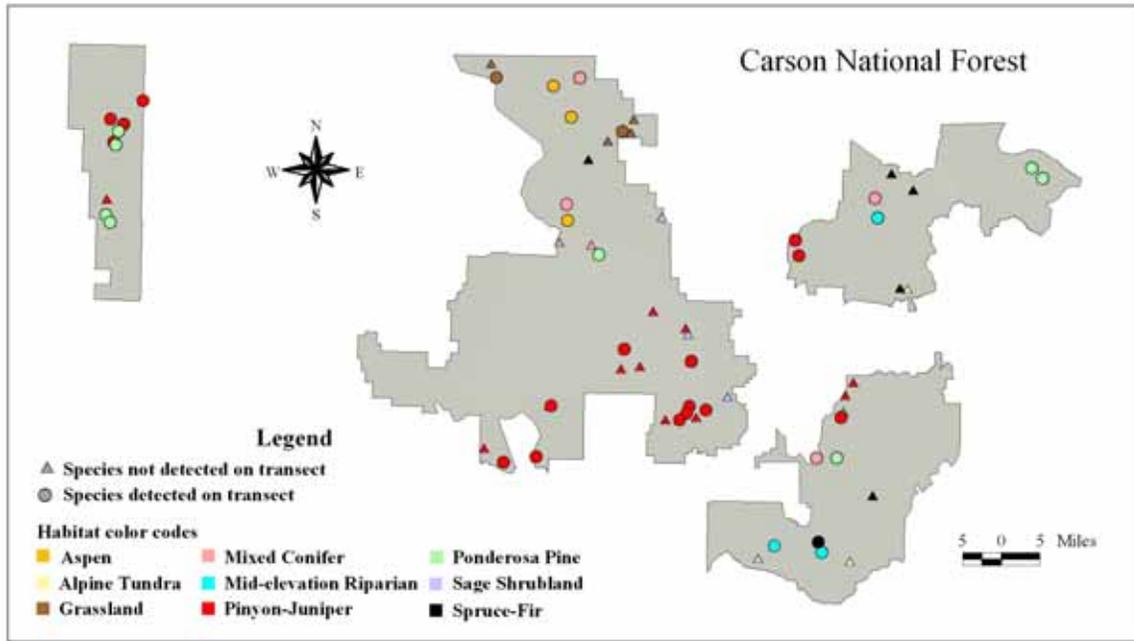


Figure 30. Distribution of transects on which Violet-green Swallow was detected in the Carson National Forest, Summer 2004.

Table 25. Habitat-specific density estimates for Violet-green Swallow in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	3
GR	ID	--	--	--	2
MC	ID	--	--	--	20
MR	ID	--	--	--	33
PJ	0.0700	0.0390	0.1259	29.8%	56
PP	0.6892	0.3202	1.4835	38.9%	50
SF	ID	--	--	--	1

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

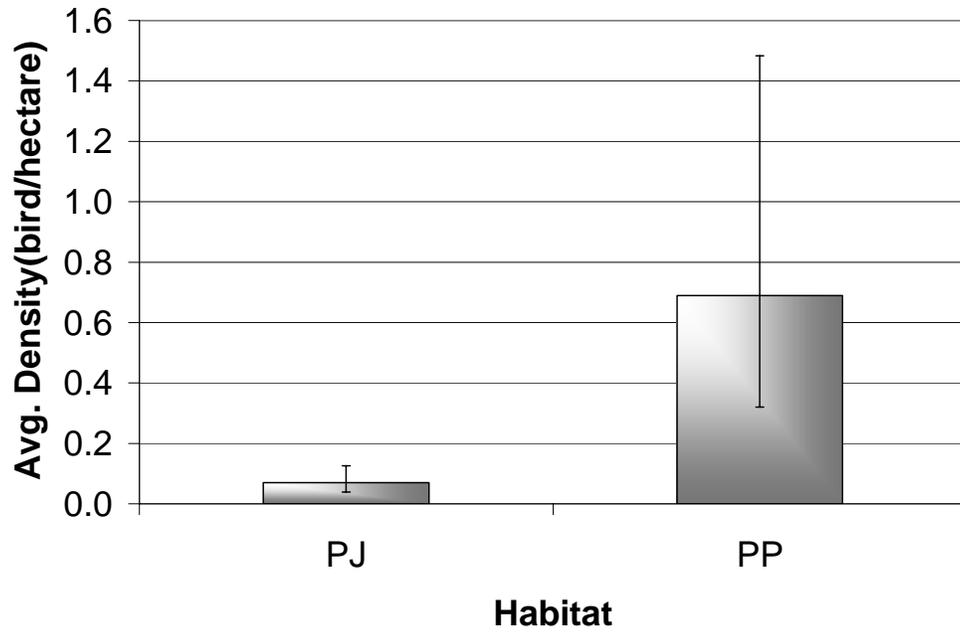


Figure 31. Relative densities (and 95% confidence limits) of Violet-green Swallow among habitats in the Carson National Forest, Summer 2004.

## Mountain Chickadee

Mountain Chickadee usually uses cavities for nesting that are constructed by other bird species, but can construct cavities of its own. As typical, we recorded this species in every transect habitat except Alpine Tundra (Fig. 32). Staff detected 351 Mountain Chickadees in all habitats this season, the highest total of any species recorded in the CNF in 2004. We are able to provide density estimates in AS, MC, PJ, PP, and SF this season, where 55, 70, 58, 59, and 109 individuals were recorded, respectively (Table 26; Fig. 33).

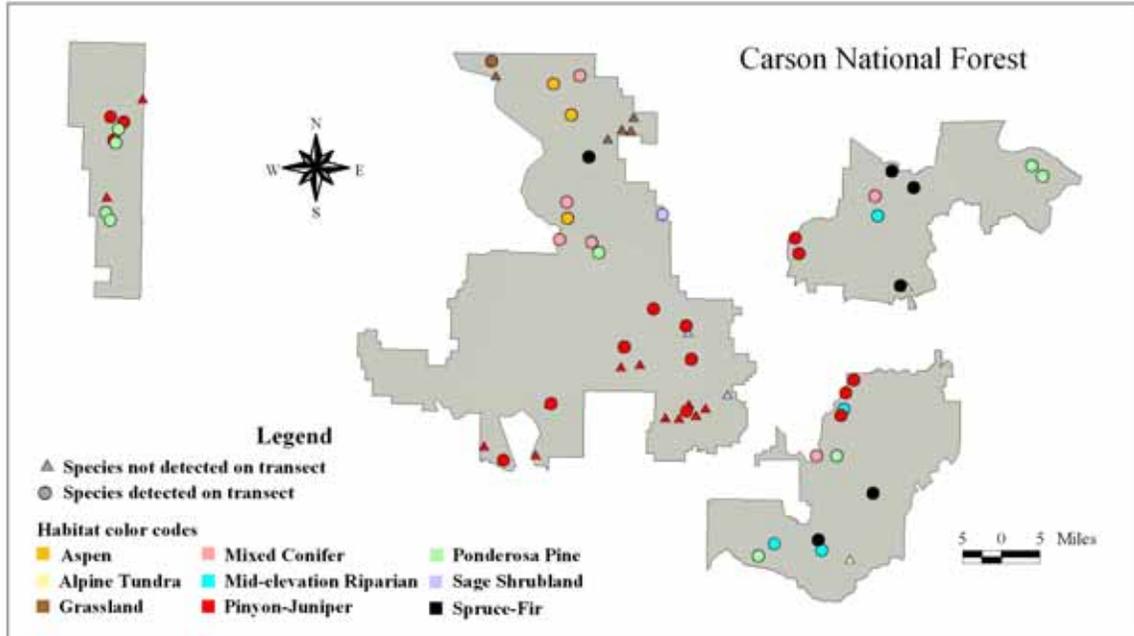


Figure 32. Distribution of transects on which Mountain Chickadee was detected in the Carson National Forest, Summer 2004.

Table 26. Habitat-specific density estimates for Mountain Chickadee in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	1.224	0.217	6.900	46.0%	54
GR	ID	--	--	--	2
MC	0.930	0.630	1.374	18.3%	63
MR	ID	--	--	--	19
PJ	0.134	0.074	0.243	30.2%	51
PP	0.403	0.253	0.643	23.1%	50
SA	ID	--	--	--	1
SF	1.040	0.715	1.513	17.3%	100

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

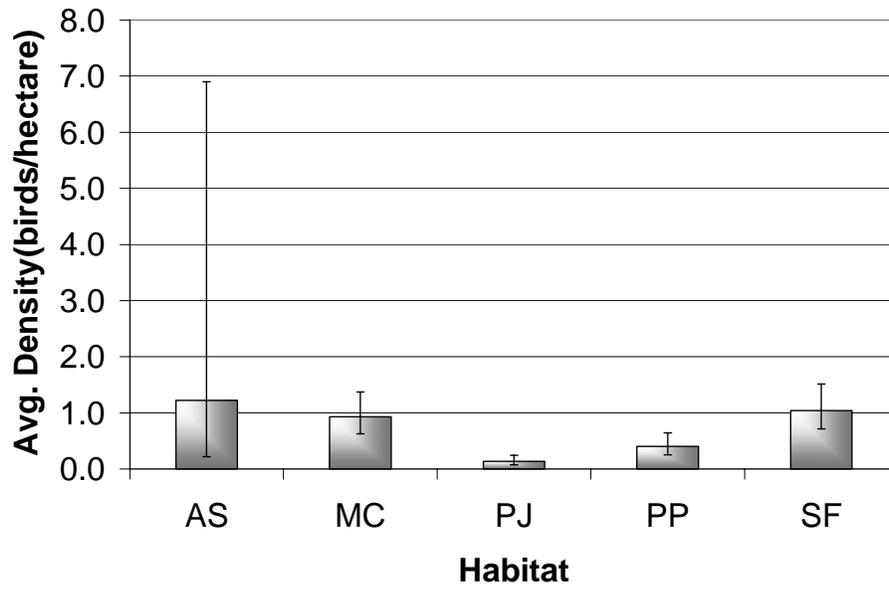


Figure 33. Relative densities (and 95% confidence limits) of Mountain Chickadee among habitats in the Carson National Forest, Summer 2004.



## Juniper Titmouse

Juniper Titmouse is another Piñon-Juniper woodland specialist and a secondary cavity-nester. This species prefers mature Piñon-Juniper woodland and seems to be persisting despite the large die-off of piñons. We recorded 119 individuals in PJ this season and provide a density estimate for the habitat (Fig. 34; Table 27). Juniper Titmouse is listed as a MIS in the CNF and as a High Responsibility management species in Piñon-Juniper habitat by the NMPIF.

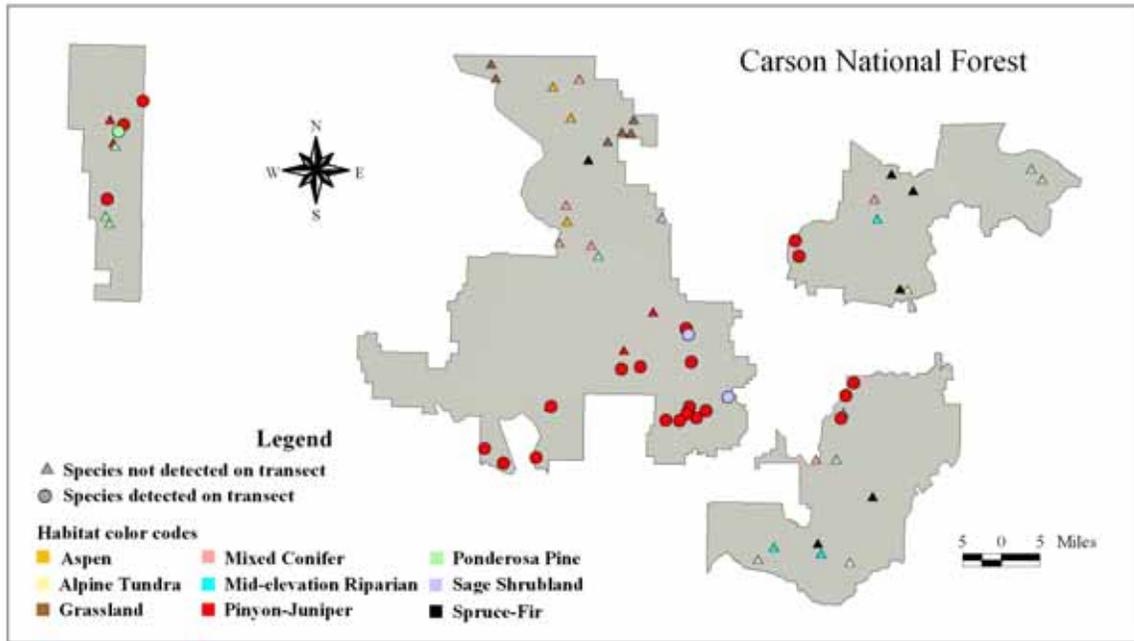


Figure 34. Distribution of transects on which Juniper Titmouse was detected in the Carson National Forest, Summer 2004.

Table 27. Habitat-specific density estimates for Juniper Titmouse in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
PJ	0.258	0.168	0.396	21.5%	116
PP	ID	--	--	--	1
SA	ID	--	--	--	3

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Bushtit

In the CNF, Bushtit is a Piñon-Juniper obligate that is typically found in flocks and builds large, elaborate nests that are shaped like bowling pins. We recorded 134 individual Bushtits (88 independent detections) this season in Piñon-Juniper and are able to provide a density estimate for the habitat (Fig. 35; Table 28). We also recorded 17 individuals (10 independent detections) on Mid-elevation Riparian transects this season.

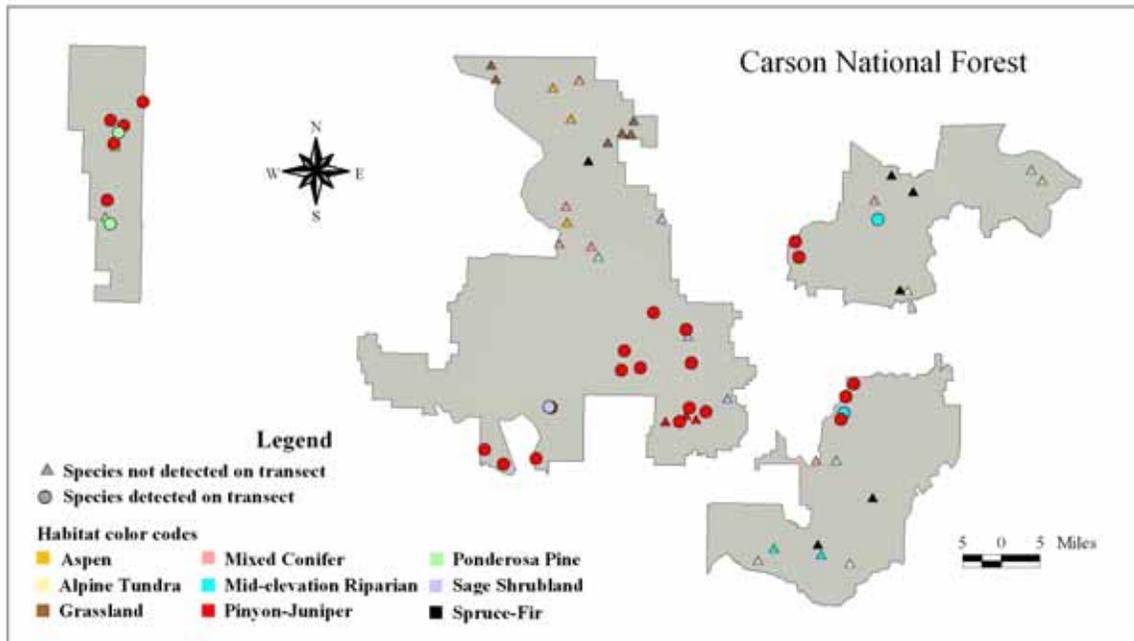


Figure 35. Distribution of transects on which Bushtit was detected in the Carson National Forest, Summer 2004.

Table 28. Habitat-specific density estimates for Bushtit in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
MR	ID	--	--	--	17
PJ	0.399	0.243	0.656	24.9%	68
PP	ID	--	--	--	4
SA	ID	--	--	--	4

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Red-breasted Nuthatch

This species prefers conifer forests, typically at higher elevations than the following species, and RMBO detected 24 individuals in SF and 23 in MC this season (Fig. 36). However, our number of independent detections for these two habitats was less than the required total of 23, so are unable to provide density estimates. Red-breasted Nuthatch is listed as a Representative species for Spruce-Fir habitat by the NMPIF.

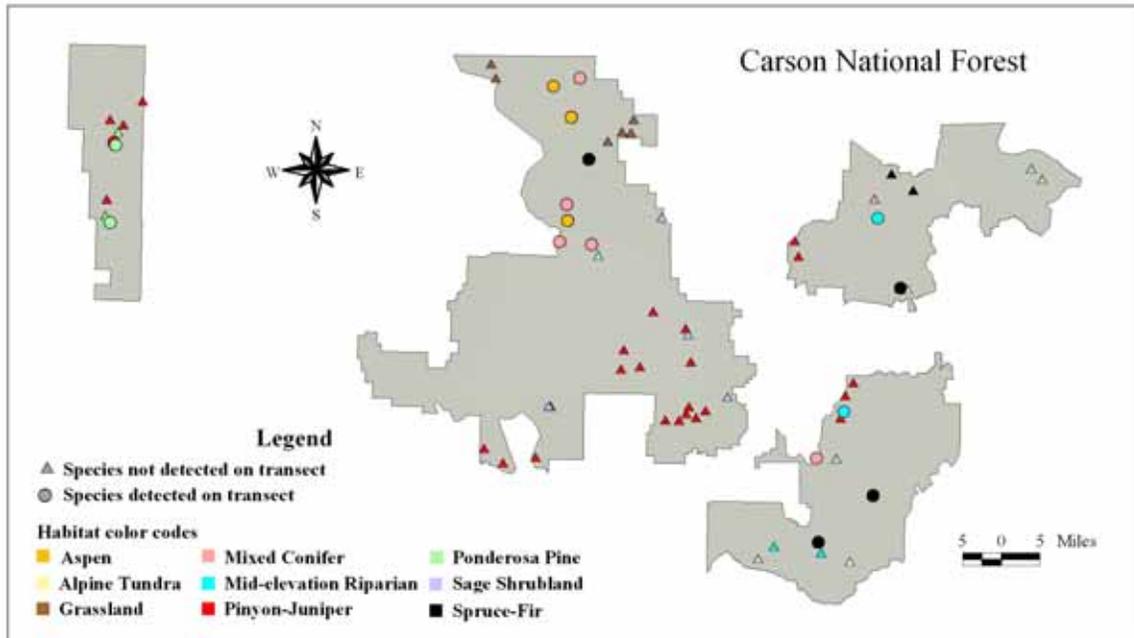


Figure 36. Distribution of transects on which Red-breasted Nuthatch was detected in the Carson National Forest, Summer 2004.



## White-breasted Nuthatch

White-breasted Nuthatch is a forested-habitat generalist, but is typically more common in low-elevation forests (Fig. 37). We are able to provide density estimates in PJ (n=28) and PP (n=31) this season, and detected the species in all habitats this season except Alpine Tundra and Grassland (Table 29; Fig. 38).

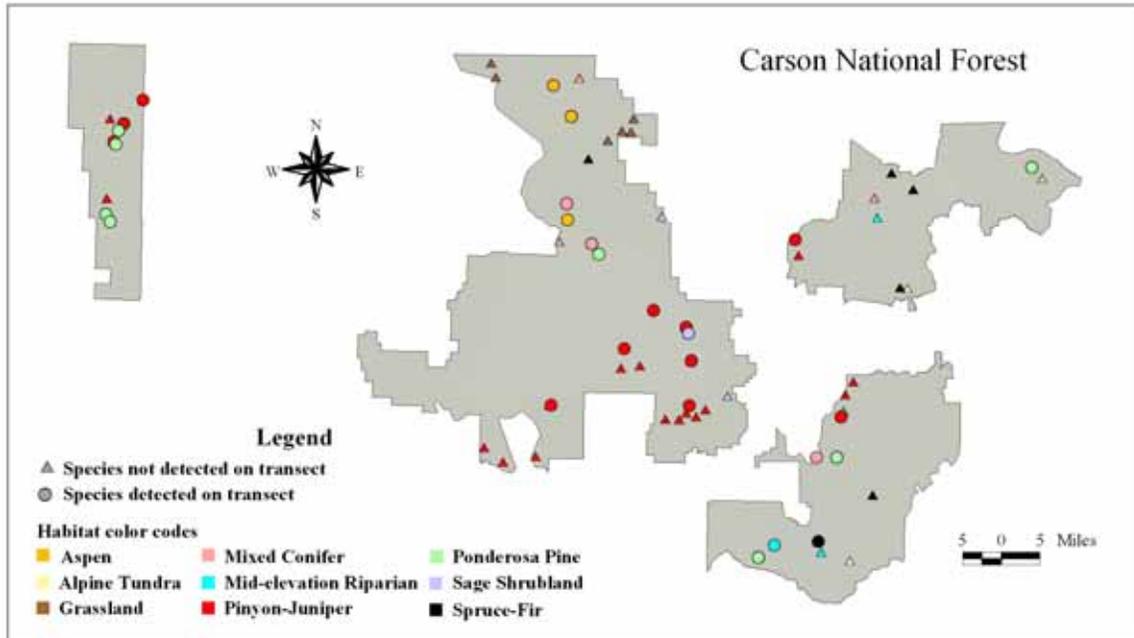


Figure 37. Distribution of transects on which White-breasted Nuthatch was detected in the Carson National Forest, Summer 2004.

Table 29. Habitat-specific density estimates for White-breasted Nuthatch in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	10
MC	ID	--	--	--	7
MR	ID	--	--	--	2
PJ	0.041	0.018	0.090	41.1%	23
PP	0.196	0.072	0.533	52.3%	25
SA	ID	--	--	--	3
SF	ID	--	--	--	1

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

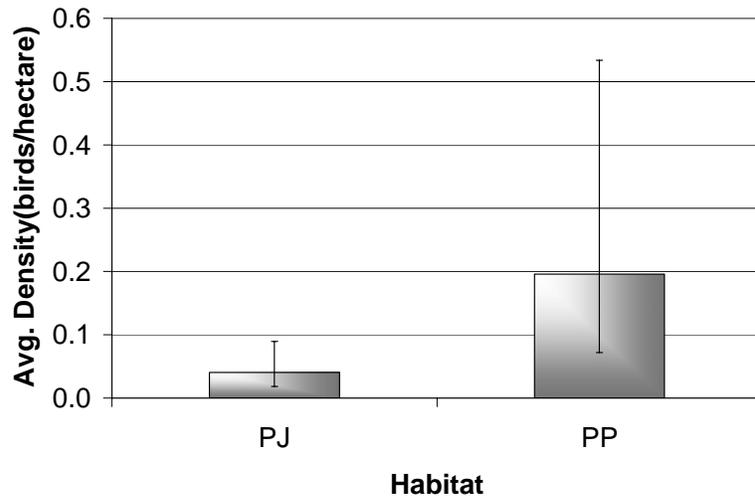


Figure 38. Relative densities (and 95% confidence limits) of White-breasted Nuthatch among habitats in the Carson National Forest, Summer 2004.



## Pygmy Nuthatch

This species is closely associated with Ponderosa Pines. It may be found in other habitats, but, if so, it is safe to say that there are Ponderosas nearby (Fig. 39). We recorded 86 individuals (55 independent detections) in Ponderosa Pine and 29 individuals (24 independent detections) in Mixed Conifer this season (Table 30; Fig. 40). This is a Priority management species in Ponderosa Pine, as listed by the NMPIF.

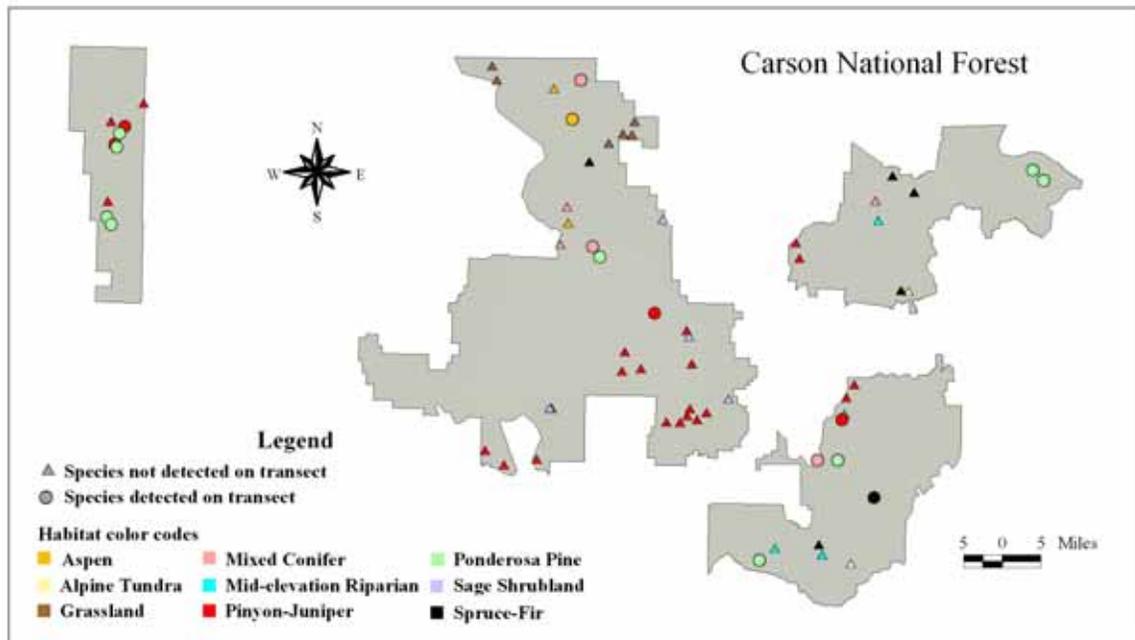


Figure 39. Distribution of transects on which Pygmy Nuthatch was detected in the Carson National Forest, Summer 2004

Table 30. Habitat-specific density estimates for Pygmy Nuthatch in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	4
MC	0.244	0.072	0.830	56.7%	23
PP	0.734	0.351	1.531	35.7%	55
PJ	ID	--	--	--	15
SF	ID	--	--	--	1

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

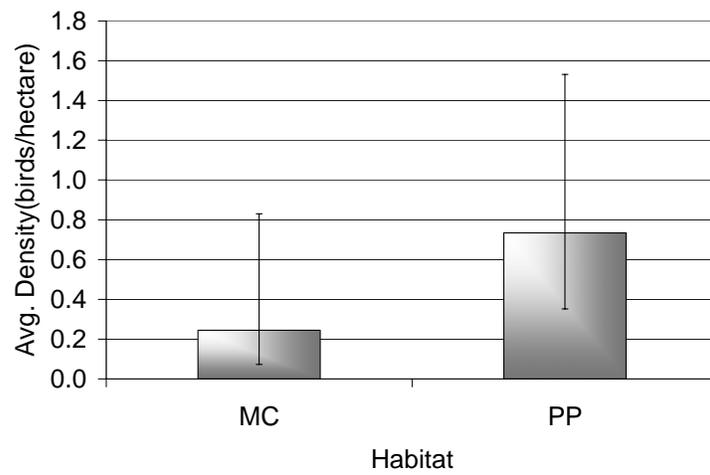


Figure 40. Relative densities (and 95% confidence limits) of Pygmy Nuthatch among habitats in the Carson National Forest, Summer 2004.



## Brown Creeper

Brown Creepers breed most frequently in higher elevation conifer forests (Fig. 41). We detected 24 on SF transects this season; however, these represented only 22 independent detections. Brown Creeper is listed by NMPIF as a Representative management species for Spruce-Fir habitat.

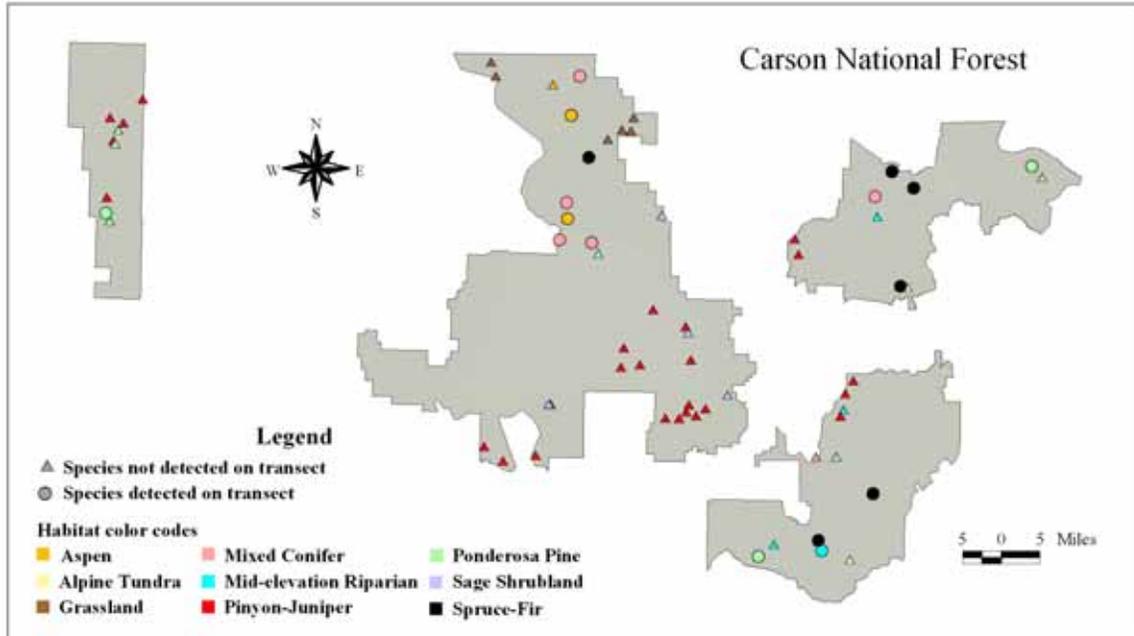


Figure 41. Distribution of transects on which Brown Creeper was detected in the Carson National Forest, Summer 2004.

## Rock Wren

Rock Wrens inhabit rocky, open areas at all elevations. This season, we detected individuals on a wide variety of habitats (Fig. 42), though the only habitat in which we are able to provide a density estimate is PJ (n=39; Table 31). Rock Wren is listed by the NMPIF as a High Responsibility management species in Montane Shrubland (Piñon-Juniper) and Great Basin Desert Shrub (Sage Shrubland) habitats.

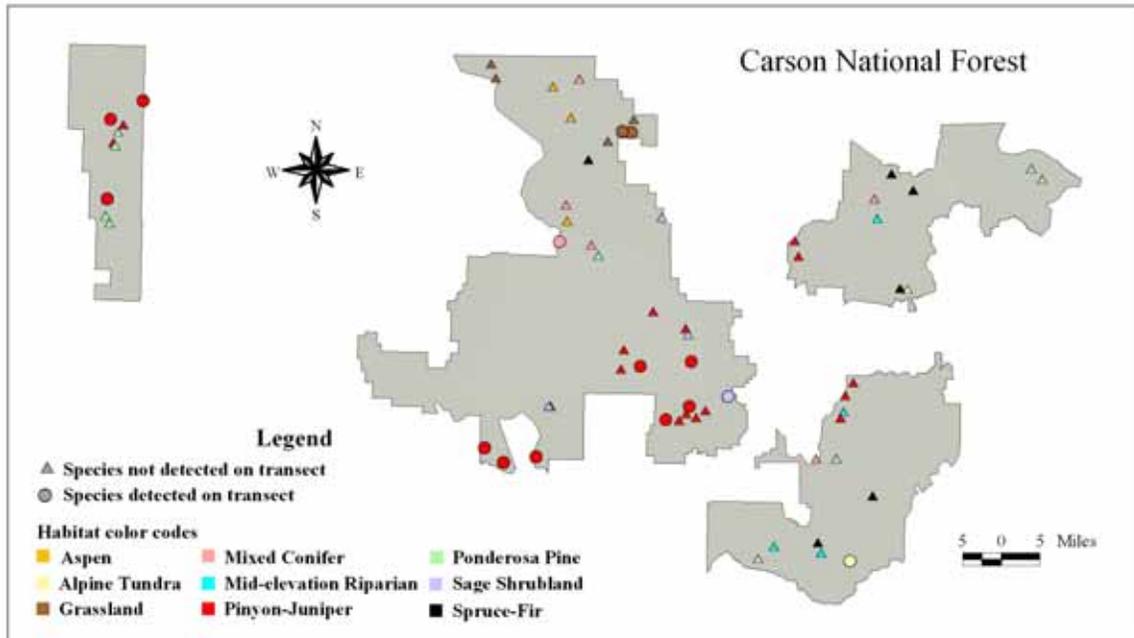


Figure 42. Distribution of transects on which Rock Wren was detected in the Carson National Forest, Summer 2004.

Table 31. Habitat-specific density estimates for Rock Wren in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AT	ID	--	--	--	1
GR	ID	--	--	--	6
MC	ID	--	--	--	3
PJ	0.014	0.006	0.034	44.7%	36
SA	ID	--	--	--	1

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Bewick's Wren

This secondary cavity-nesting species breeds in Piñon-Juniper woodland in the CNF and we were able to provide a density estimate in Piñon-Juniper where we detected 50 individuals this summer (Fig. 43; Table 32).

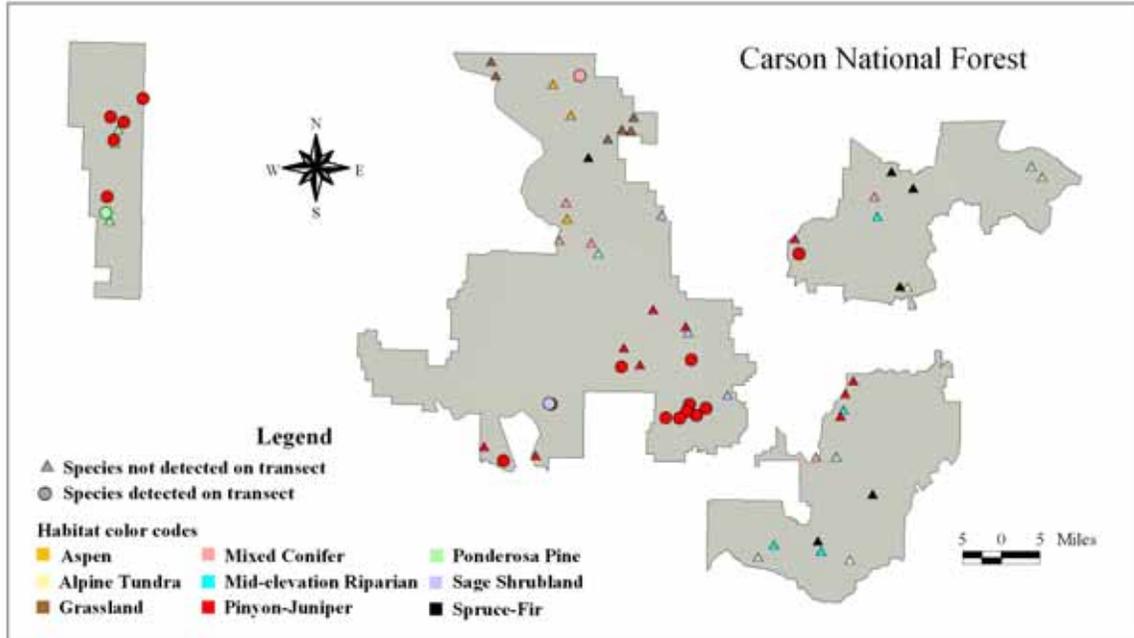


Figure 43. Distribution of transects on which Bewick's Wren was detected in the Carson National Forest, Summer 2004.

Table 32. Habitat-specific density estimates for Bewick's Wren in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
MC	ID	--	--	--	1
PJ	0.065	0.037	0.115	28.9%	49
PP	ID	--	--	--	1
SA	ID	--	--	--	2

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## House Wren

In the CNF, this species is most commonly found in Aspen stands (Fig. 44), and in 2003 monitoring efforts provided a density estimate in that habitat. This year, however, staff detected only 20 individuals in AS. We also detected House Wrens on Grassland (n=1), Mixed Conifer (n=20), Mid-elevation Riparian (n=2), Piñon-Juniper (n=2), Ponderosa Pine (n=11), and Spruce-Fir (n=6) transects.

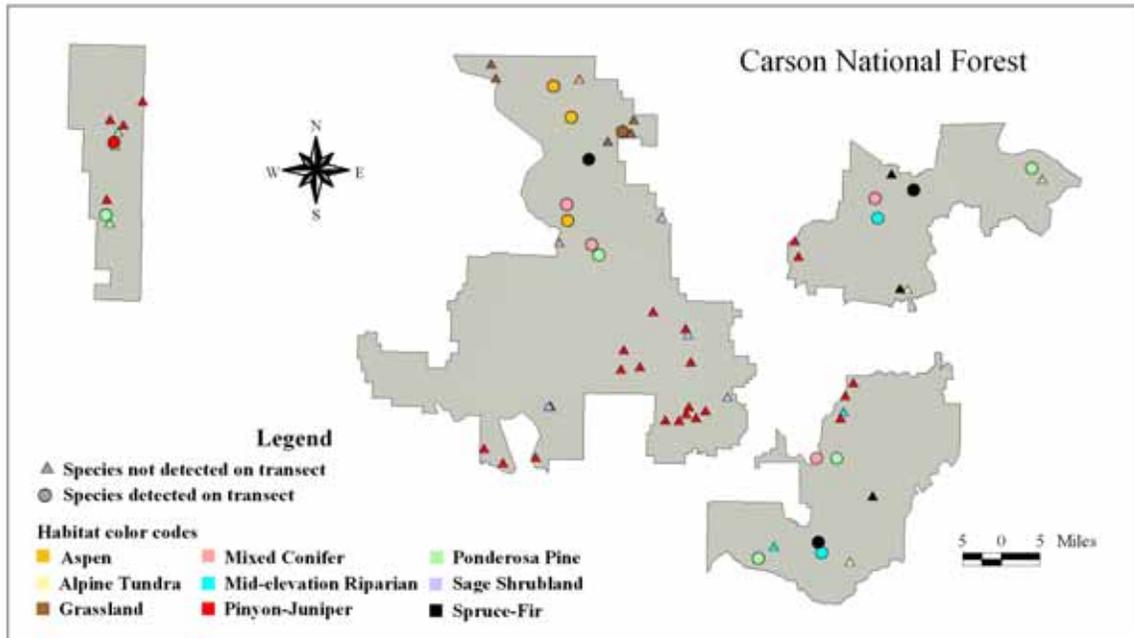


Figure 44. Distribution of transects on which House Wren was detected in the Carson National Forest, Summer 2004

## Ruby-crowned Kinglet

Ruby-crowned Kinglet is a common breeding species of Spruce-Fir forests (Fig. 45). In 2003 we were able to provide density estimates for three habitats, but this season we provide a density estimate only for SF (Table 33).

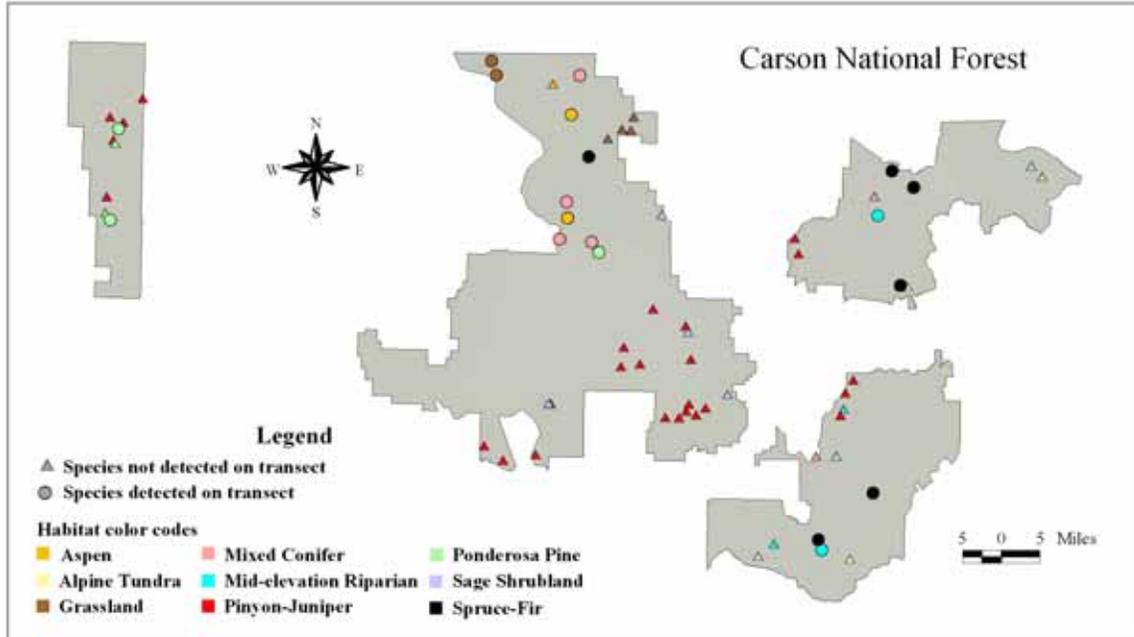


Figure 45. Distribution of transects on which Ruby-crowned Kinglet was detected in the Carson National Forest, Summer 2004.

Table 33. Habitat-specific density estimates for Ruby-crowned Kinglet in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	14
GR	ID	--	--	--	5
MC	ID	--	--	--	12
MR	ID	--	--	--	4
PP	ID	--	--	--	4
SF	0.266	0.102	0.690	44.6%	32

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Blue-gray Gnatcatcher

This species prefers areas with extensive shrub cover and is most common in the southern Rockies in Piñon-Juniper (Fig. 46). This year we are able to provide a density estimate in PJ, as we detected 46 individuals there this season (Table 34). This is a Representative species in Montane Shrubland habitat as listed by NMPIF.

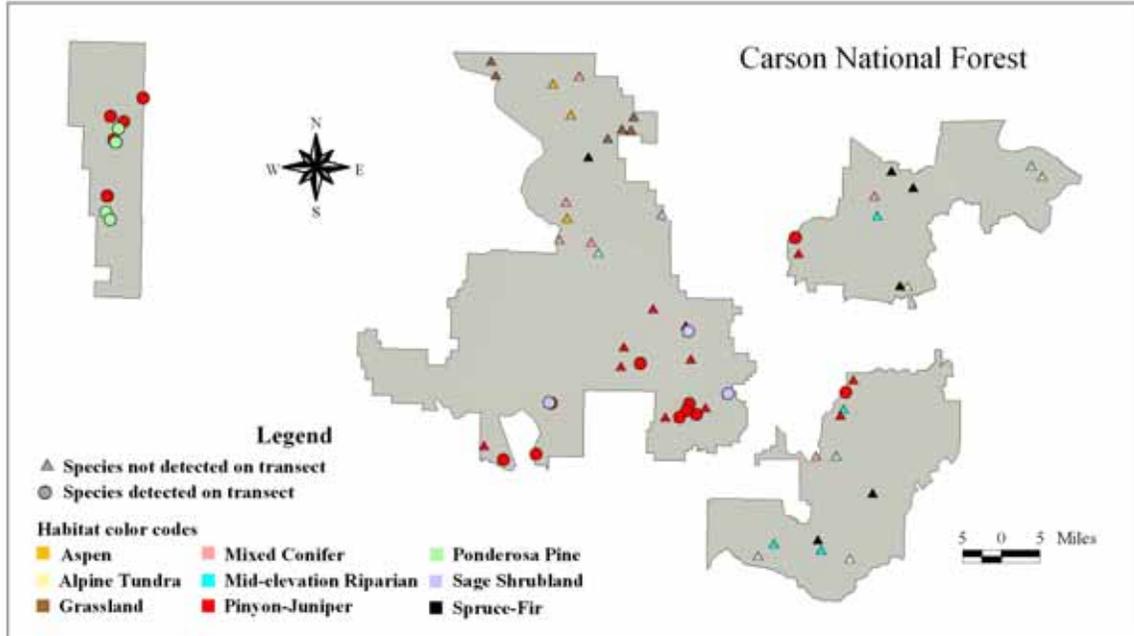


Figure 46. Distribution of transects on which Blue-gray Gnatcatcher was detected in the Carson National Forest, Summer 2004.

Table 34. Habitat-specific density estimates for Blue-gray Gnatcatcher in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
PJ	0.311	0.142	0.682	40.8%	41
PP	ID	--	--	--	20
SA	ID	--	--	--	3

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

## Western Bluebird

Western Bluebirds are most frequently found in Ponderosa Pine, but also occupy Piñon-Juniper (Fig. 47). We provide estimates of density in both habitats this year (Table 35; Fig. 48). Western Bluebird is listed as a Priority management species for both Piñon-Juniper and Ponderosa Pine.

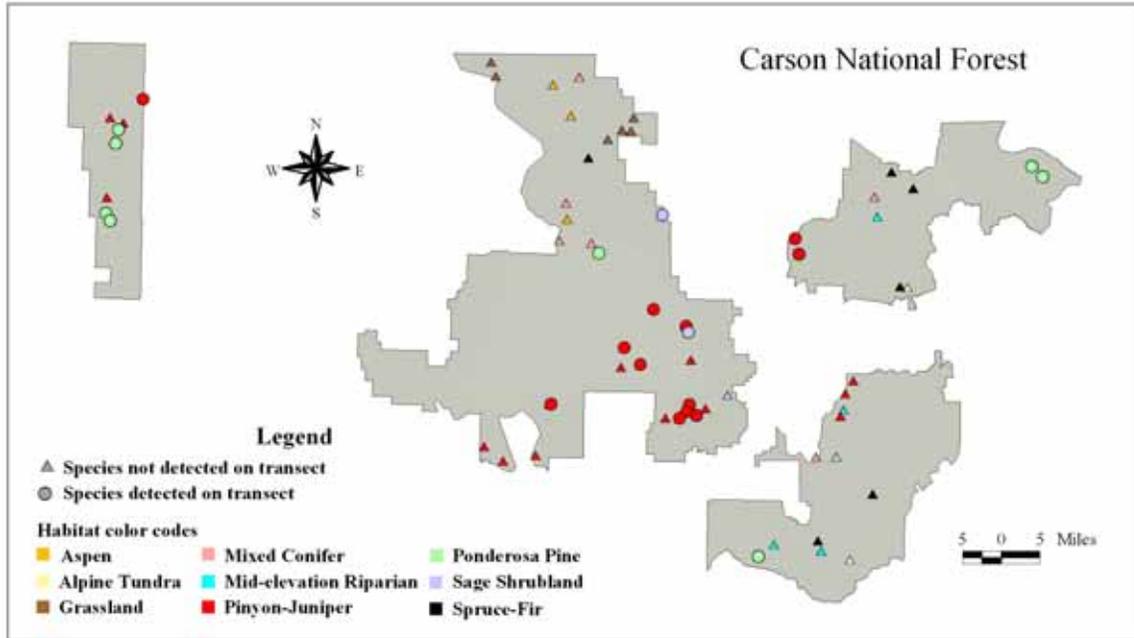


Figure 47. Distribution of transects on which Western Bluebird was detected in the Carson National Forest, Summer 2004.

Table 35. Habitat-specific density estimates for Western Bluebird in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
PJ	0.033	0.014	0.076	43.2%	23
PP	0.387	0.207	0.723	28.7%	50
SA	ID	--	--	--	4

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

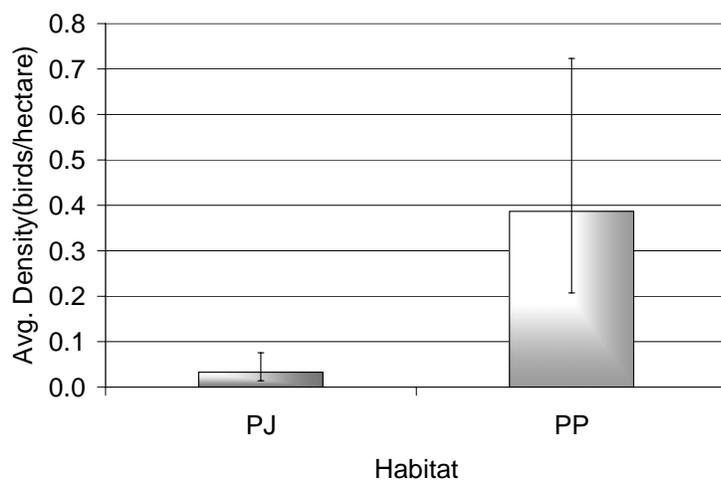


Figure 48. Relative densities (and 95% confidence limits) of Western Bluebird among habitats in the Carson National Forest, Summer 2004.



## Mountain Bluebird

Mountain Bluebird can be described as a species that likes edges. It is most frequently found on edges of Piñon-Juniper and open grasslands or sage shrublands (Fig. 49). It can also be encountered where Aspen stands meet high-elevation meadows. We recorded Mountain Bluebirds on transects in five habitats in 2004, producing a density estimate in PJ (Table 36). This species is listed as a Priority management species in Piñon-Juniper by NMPIF and as a Stewardship Species in the Intermountain West region in the North American Landbird Conservation Plan.

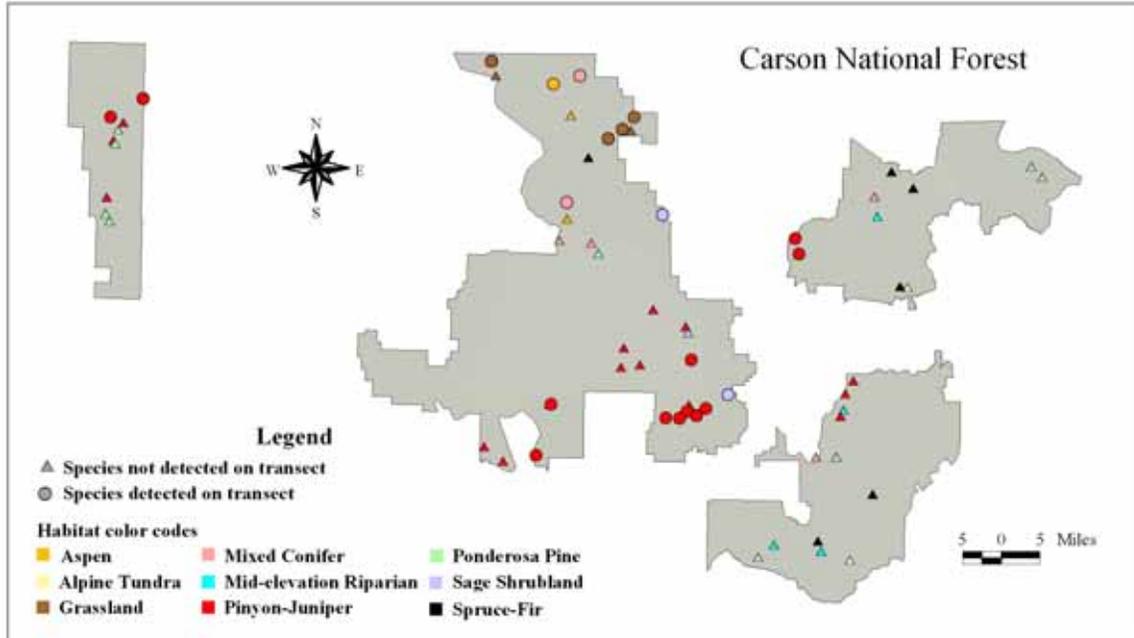


Figure 49. Distribution of transects on which Mountain Bluebird was detected in the Carson National Forest, Summer 2004

Table 36. Habitat-specific density estimates for Mountain Bluebird in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	ID	--	--	--	1
GR	ID	--	--	--	25
MC	ID	--	--	--	5
PJ	0.016	0.007	0.034	39.4%	24
SA	ID	--	--	--	13

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; ID=insufficient data

## Townsend's Solitaire

Townsend's Solitaire is forested-habitat generalist, provided its specific nesting requirements are met (Fig. 50). We detected 29 individuals this season of which 15 were in PP. This species is listed by NMPIF as a Priority management species in Mixed Conifer and Spruce-Fir.

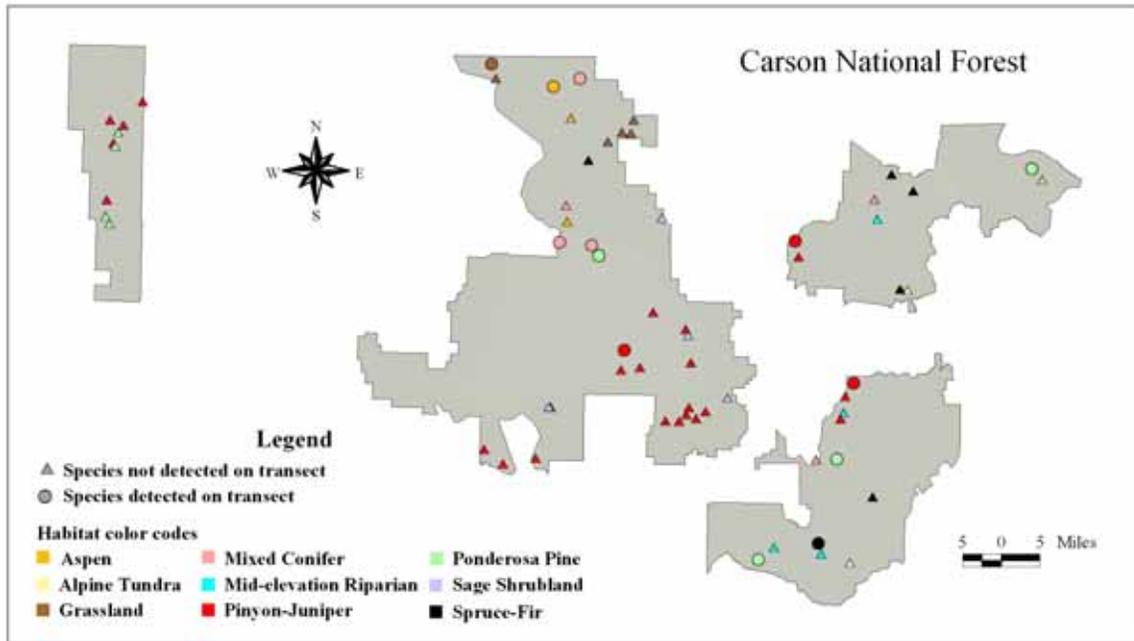


Figure 50. Distribution of transects on which Townsend's Solitaire was detected in the Carson National Forest, Summer 2004.

## Hermit Thrush

In CNF, Hermit Thrushes breed most commonly in Spruce-Fir, but also inhabit other forested habitats (Fig. 51). We are able to provide density estimates from four habitats this season (Table 37; Fig 52).

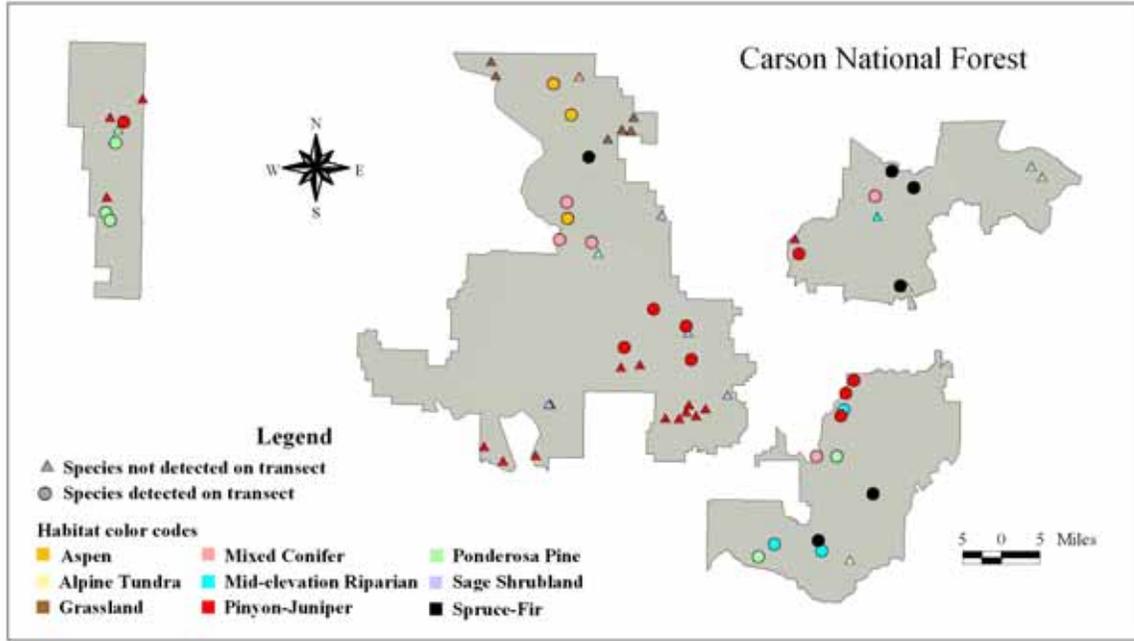


Figure 51. Distribution of transects on which Hermit Thrush was detected in the Carson National Forest, Summer 2004.

Table 37. Habitat-specific density estimates for Hermit Thrush in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	0.062	0.016	0.235	46.2%	26
MC	0.075	0.040	0.140	29.3%	46
MR	ID	--	--	--	6
PJ	ID	--	--	--	22
PP	0.011	0.004	0.028	47.1%	23
SF	0.166	0.083	0.332	29.7%	83

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; ID=insufficient data

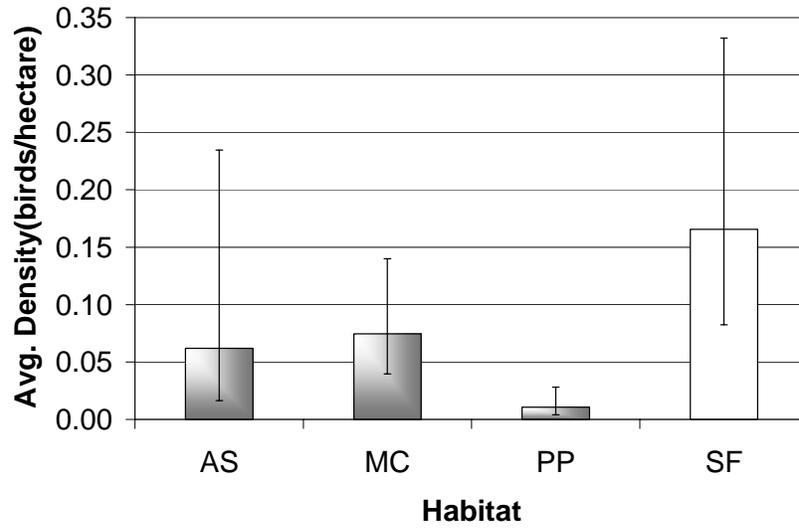


Table 52. Relative density of Hermit Thrush among habitats in the Carson National Forest, Summer 2004.



## American Robin

A very adaptable species, American Robins were found in all habitats this season (Fig. 53), as is typical for Colorado transects. We were able to provide density estimates for five habitats this year (Table 38; Fig.54). This was the ninth most common species in all habitats combined this season.

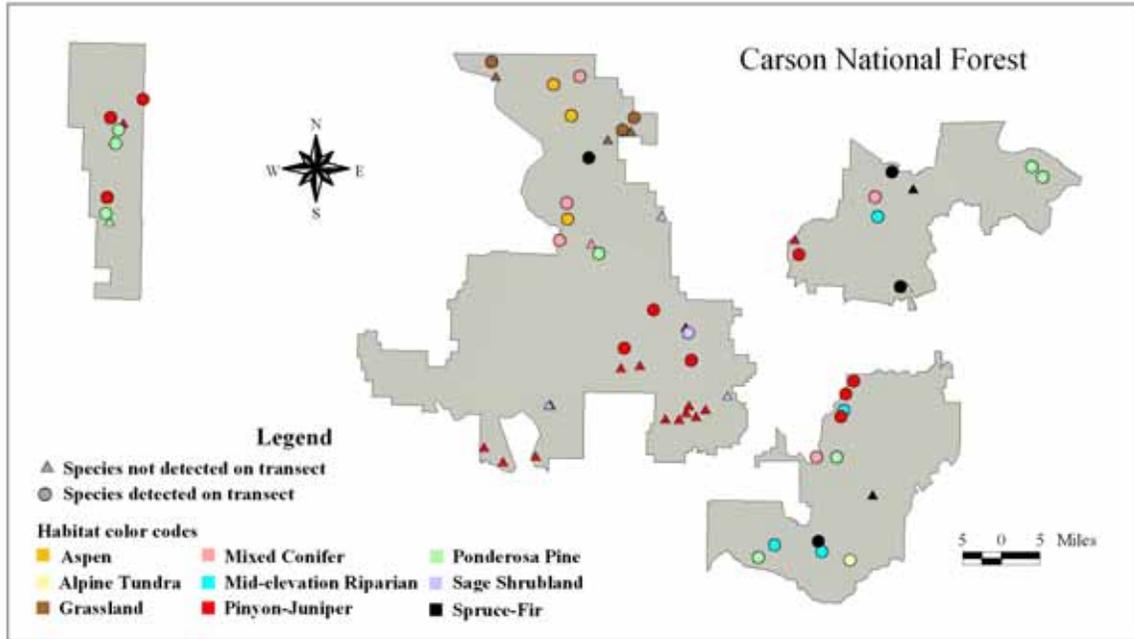


Figure 53. Distribution of transects on which American Robin was detected in the Carson National Forest, Summer 2004.

Table 38. Habitat-specific density estimates for American Robin in the Carson National Forest, Summer 2004.

Habitat	D	LCL	UCL	CV	n
AS	0.200	0.068	0.585	44.7%	30
AT	ID	--	--	--	1
GR	ID	--	--	--	8
MC	0.341	0.179	0.649	29.7%	54
MR	0.633	0.354	1.132	26.2%	42
PJ	0.011	0.005	0.023	37.1%	25
PP	0.234	0.095	0.578	45.9%	49
SA	ID	--	--	--	1
SF	ID	--	--	--	21

D=Density (birds/ha); LCL=lower confidence limit of D; UCL=upper confidence limit of D; CV=coefficient of variation of D; n=number of observations used in analysis; ID=insufficient data

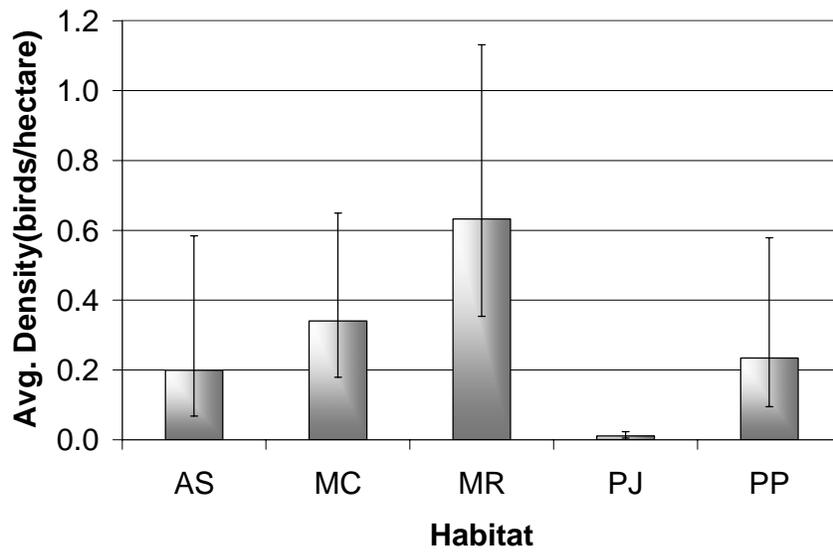


Table 54. Relative densities (and 95% confidence limits) of American Robin among habitats in the Carson National Forest, Summer 2004.

## Northern Mockingbird

This species typically breeds in low-elevation open areas with few trees (Fig. 55). Last year, we were able to provide a density estimate in PJ, however, this year we detected only 14 individuals in the habitat.

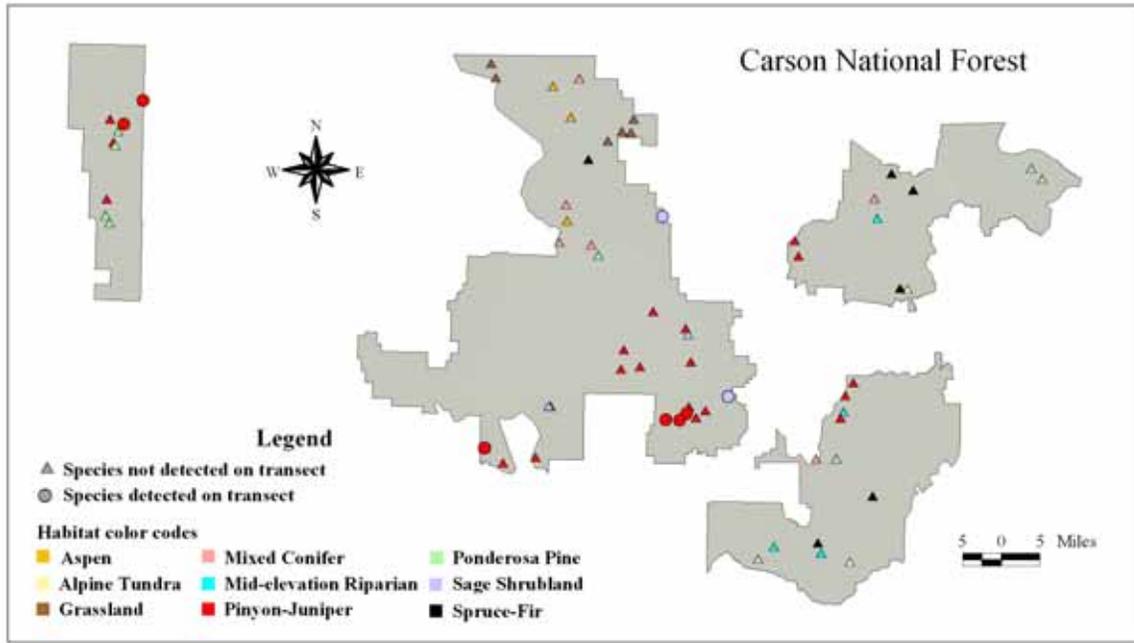


Figure 55. Distribution of transects on which Northern Mockingbird was detected in the Carson National Forest, Summer 2004.

