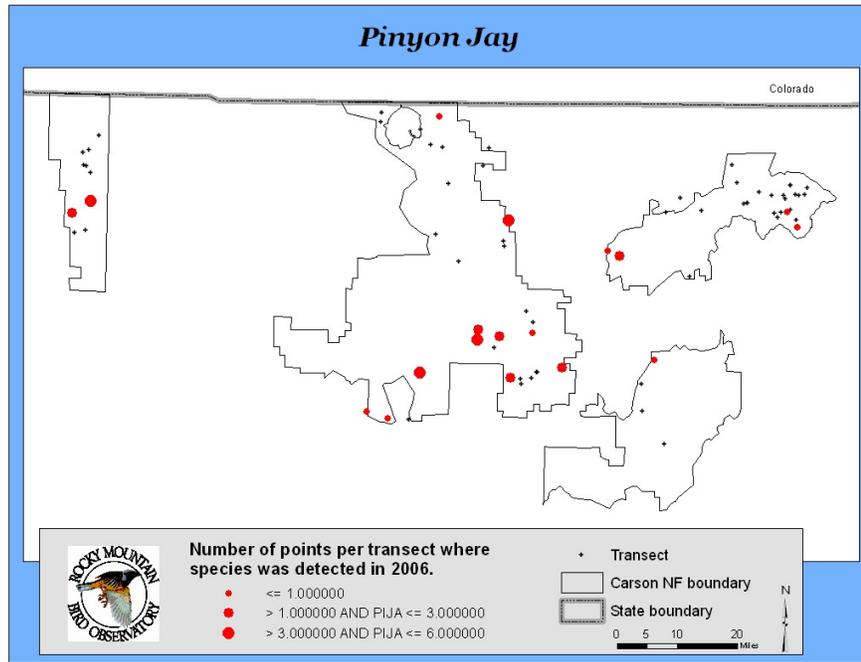


## Pinyon Jay (*Gymnorhinus cyanocephalus*)

- PIF Species of Continental Concern
- PIF Species of Regional Concern
- PIF Continental Stewardship Species
- PIF Regional Stewardship Species
- NM-PIF Species of High Responsibility for Pinyon-Juniper
- USFWS Bird of Conservation Concern
- NMDGF - Species of Greatest Conservation Need

Pinyon Jays are rarely found in areas without pinyon pines. This species is very important for the overall health of pinyon forests as they cache large amounts of pinyon seeds that often germinate.

In 2006, we detected 135 Pinyon Jays in three habitats on the *MBCNF* project and 28 in ponderosa pine on the *VV* project. The Pinyon Jay



should be effectively monitored under *MBCNF* in Pinyon-

Map showing Index of Abundance for Pinyon Jay on transects in the Carson National Forest, 2006.

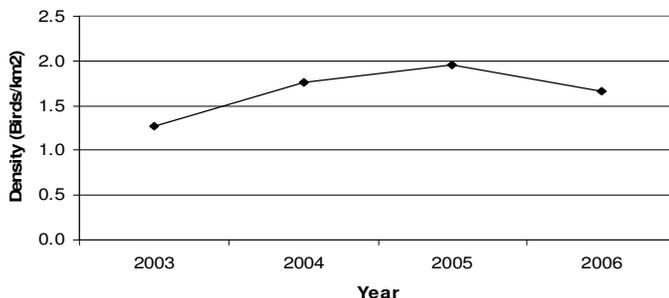
Juniper. Because the Pinyon Jay is an early season breeder, it important to distinguish adult from juvenile birds to accurately estimate the number of breeding individuals.

### Habitat-specific density estimates for Pinyon Jay for the *MBCNF* monitoring project, 2006.

Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
PJ	1.7	0.9	3.1	39	39	66

*D* = Density (birds/square kilometer); *LCL* = lower 90% confidence interval of the density; *UCL* = upper 90% confidence interval of the density; *CV%* = coefficient of variation of the density; *n* = number of independent detections; *N* = total number of individuals detected.

Estimated densities of Pinyon Jay in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.

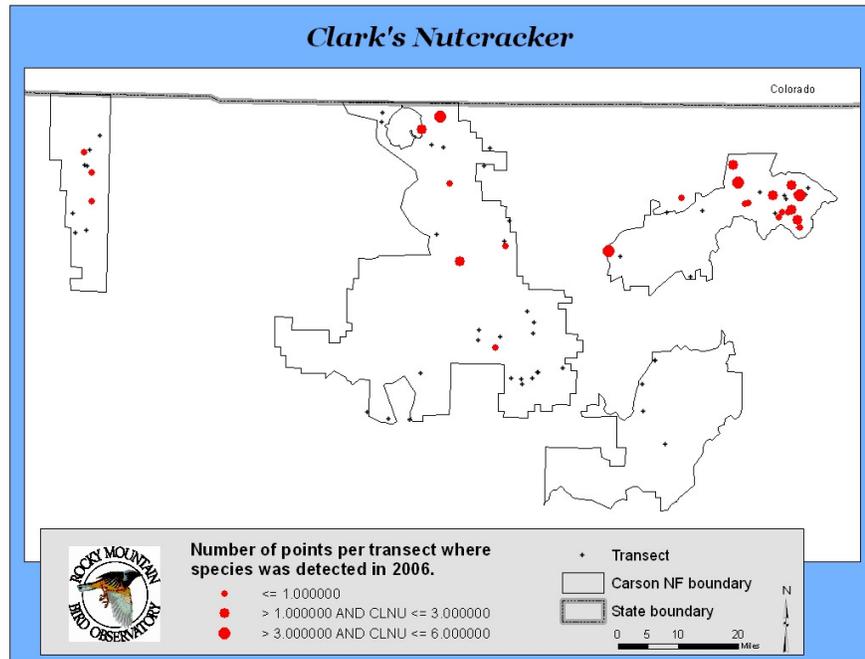


## Clark's Nutcracker (*Nucifraga columbiana*)

NM-PIF Priority management species for Mixed Conifer  
NM-PIF Priority management species for Spruce-Fir  
PIF Continental Stewardship Species  
PIF Regional Stewardship Species

Clark's Nutcracker nests in all coniferous habitats and, when not nesting, travels widely in search of food. Pinyon-juniper is a habitat in which the nutcracker breeds infrequently; however, we detected sufficient numbers to calculate a density estimate in 2005 in the CNF.

We detected 35 Clark's Nutcrackers in six habitats and 24 individuals in four habitats on the VV project in 2006.

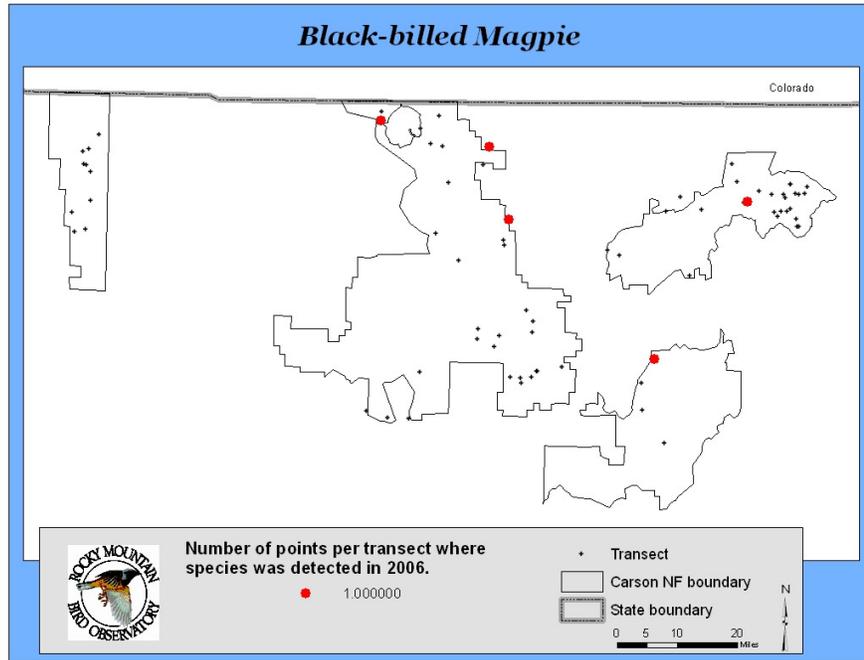


Map showing Index of Abundance for Clark's Nutcracker on transects in the Carson National Forest, 2006.

## Black-billed Magpie (*Pica hudsonia*)

PIF Regional Stewardship Species

The Black-billed Magpie requires a supply of mud which it uses to construct large nests that will last for years. These nests are often used by other species after the magpies abandon them, including Great Horned and Long-eared Owls (Richter et al. 2004). Magpies have adapted well to man-made circumstances and are often seen foraging along roads on roadkill and refuse. Even though this species is considered a fairly common bird of open areas, we do not detect it in high numbers on transects.



Map showing Index of Abundance for Black-billed Magpie on transects in the Carson National Forest, 2006.

In 2006, we detected four Black-billed Magpies in three habitats on the *MBCNF* project and four individuals in grassland on the *VV* project. Two of the transects where we detected Black-billed Magpie in 2006, we also detected the species on in previous years: GR04 in 2005 and 2006, and PJ38 in 2004, 2005, and 2006.

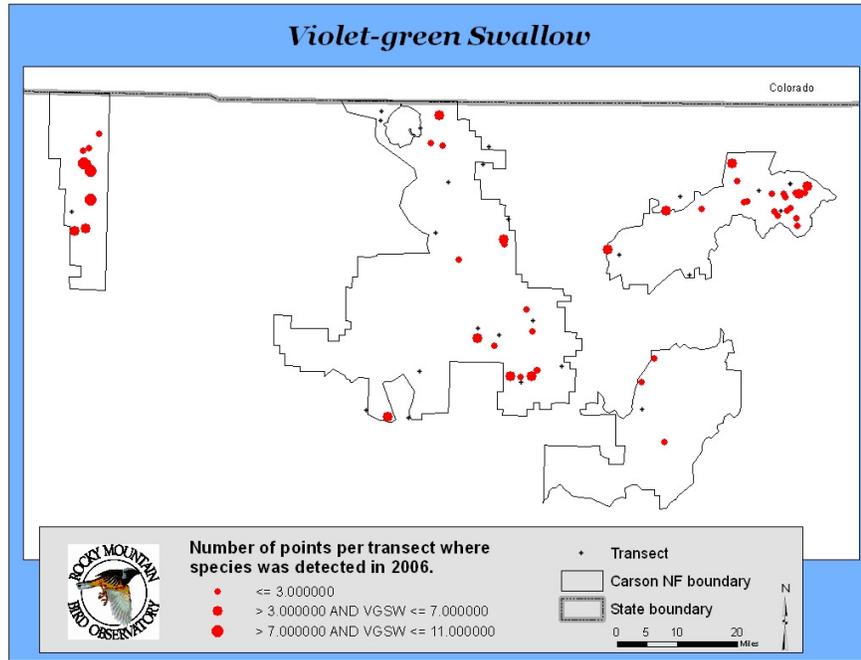
## Violet-green Swallow (*Tachycineta thalassina*)

PIF Regional Stewardship Species

The Violet-green Swallow often nests on cliffs and sometimes near White-throated Swifts. It will also nest near Tree Swallows in aspen stands or in ponderosa pine snags (Richter et al. 2004).

We detected 240 Violet-green Swallows in six habitats on the *MBCNF* project and 32 in four habitats on the *VV* project in 2006. We were able to provide a density estimate in pinyon-juniper and ponderosa pine for this species.

This species should be well-monitored in pinyon-juniper and in ponderosa pine habitats under *MBCNF*.



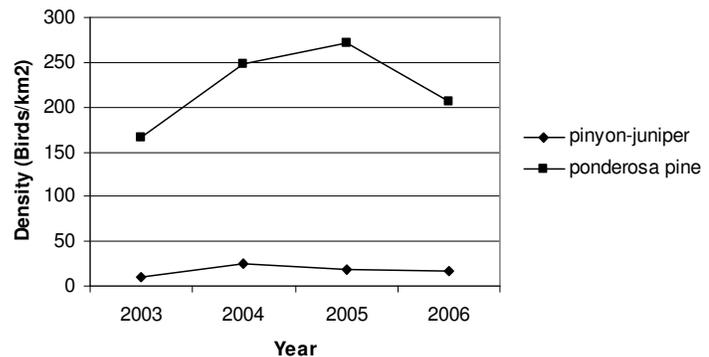
Map showing Index of Abundance for Violet-green Swallow on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Violet-green Swallow for the *MBCNF* monitoring project, 2006.

Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
PJ	16	10	26	28	55	80
PP	206	112	380	38	60	111

*D* = Density (birds/square kilometer); *LCL* = lower 90% confidence interval of the density; *UCL* = upper 90% confidence interval of the density; *CV%* = coefficient of variation of the density; *n* = number of independent detections; *N* = total number of individuals detected.

Estimated densities of Violet-green Swallow in pinyon-juniper and ponderosa pine for *MBCNF* monitoring project, 2003-2006.

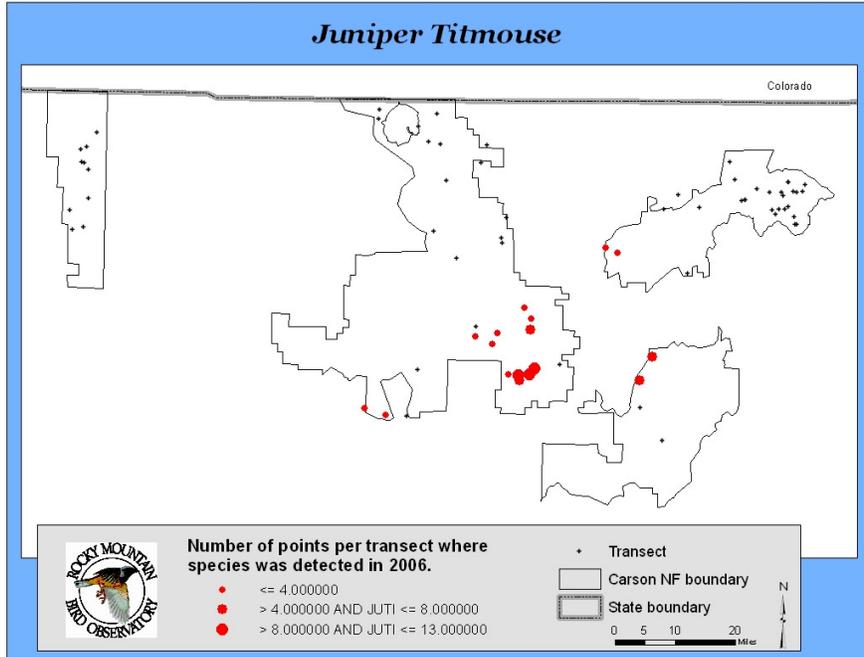


## Juniper Titmouse (*Baeolophus ridgwayi*)

CNF Management Indicator Species  
PIF Species of Regional Concern  
PIF Regional Stewardship Species  
NM-PIF Species of High Responsibility for pinyon-juniper

The Juniper Titmouse is a pinyon-juniper specialist that is rarely found in other habitats, and nests in cavities which are constructed by other species. We have provided a density estimate in pinyon-juniper habitat for all four years of the *MBCNF* project.

We recorded 133 Juniper Titmouse in two habitats on the *MBCNF* project in 2006. The Juniper Titmouse should be well-monitored in pinyon-juniper under *MBCNF*.



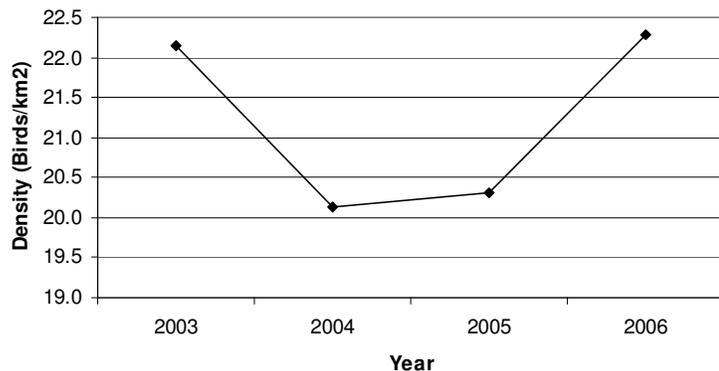
Map showing Index of Abundance for Juniper Titmouse on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Juniper Titmouse for the *MBCNF* monitoring project, 2006.

Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
PJ	22	15	33	24	116	131

*D* = Density (birds/square kilometer); *LCL* = lower 90% confidence interval of the density; *UCL* = upper 90% confidence interval of the density; *CV%* = coefficient of variation of the density; *n* = number of independent detections; *N* = total number of individuals detected.

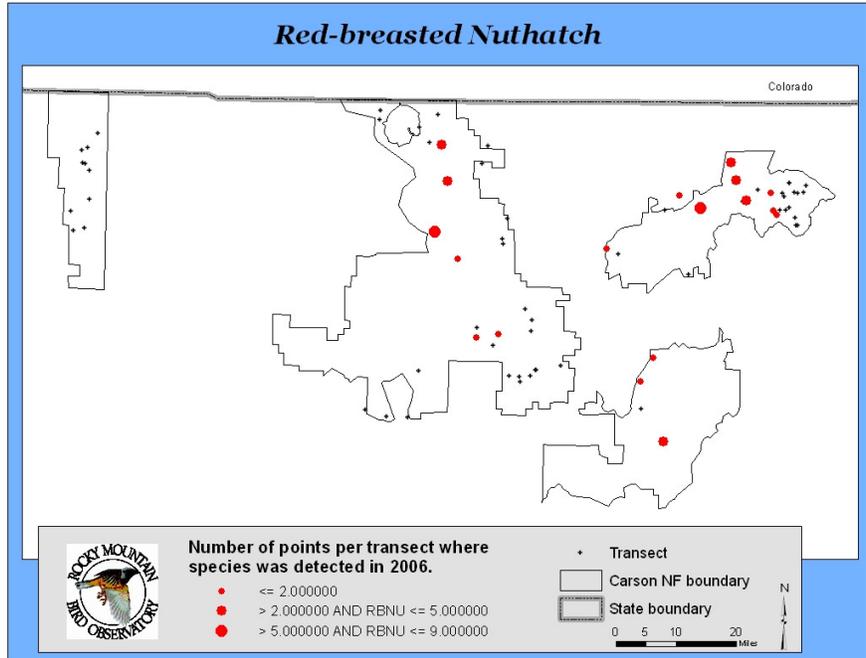
Estimated densities of Juniper Titmouse in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.



## Red-breasted Nuthatch (*Sitta canadensis*)

NM-PIF Habitat Representative Species for Mixed Conifer

Red-breasted Nuthatches breed in high-elevation conifer forests, especially where aspen are present (Kingery 1998). We detected 38 Red-breasted Nuthatches in five habitats on the *MBCNF* project and 16 in three habitats on the *VV* project in 2006. Due to the low density of this species, estimation of population trend would require a larger number of point transects than we sampled in the past.



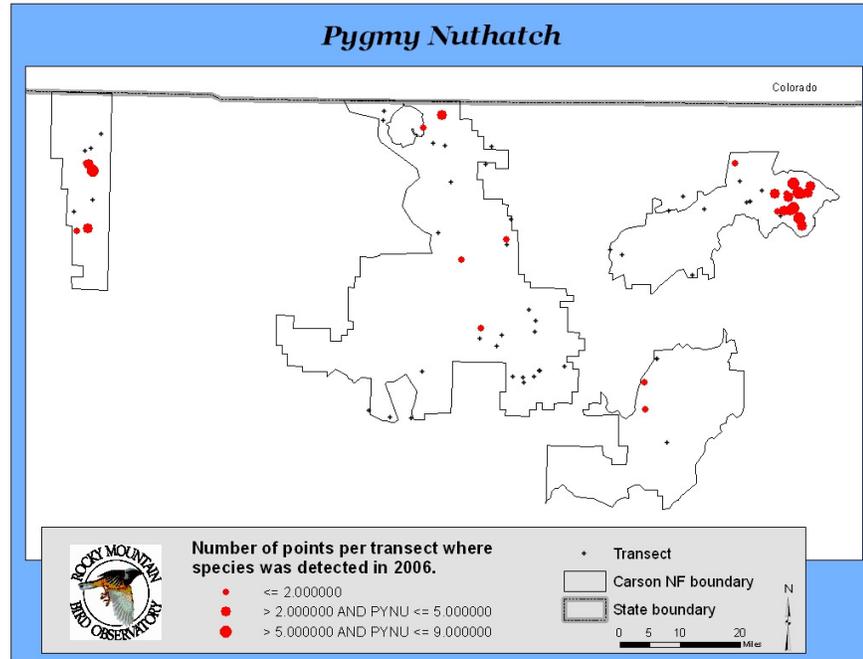
Map showing Index of Abundance for Red-breasted Nuthatch on transects in the Carson National Forest, 2006.

## Pygmy Nuthatch (*Sitta pygmaea*)

PIF Species of Regional Concern  
NM-PIF Priority Species for Ponderosa Pine

The Pygmy Nuthatch relies almost exclusively on ponderosa pine. Rarely is this species detected where ponderosa pine is not present, and it frequently nests in ponderosa pine snags.

In 2006, we detected 67 Pygmy Nuthatches in four habitats on the *MBCNF* project and 61 in three habitats on the *VV* project. This species should be effectively monitored under *MBCNF* by point transects in at least ponderosa pine and possibly mixed conifer habitat.



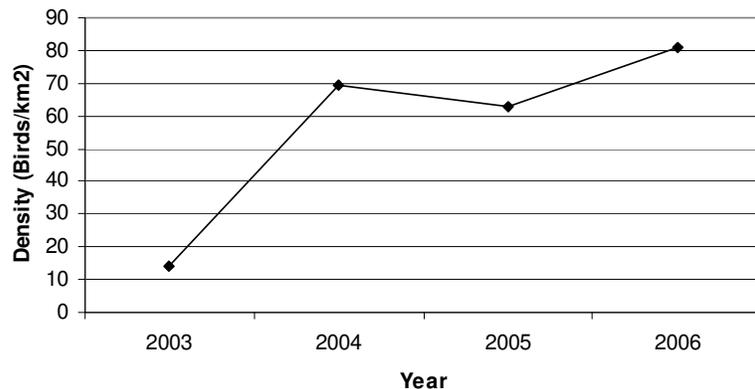
Map showing Index of Abundance for Pygmy Nuthatch on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Pygmy Nuthatch for the *MBCNF* monitoring project, 2006.

Project	Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
MBCNF	PP	81	40	164	44	40	51
VV	PP	78	51	120	26	47	56

*D* = Density (birds/square kilometer); *LCL* = lower 90% confidence interval of the density; *UCL* = upper 90% confidence interval of the density; *CV%* = coefficient of variation of the density; *n* = number of independent detections; *N* = total number of individuals detected.

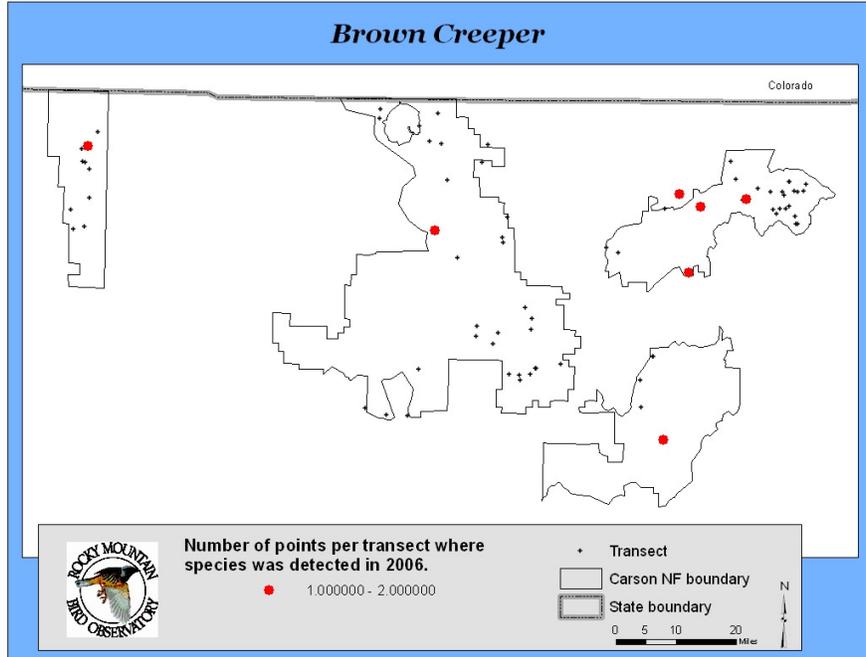
Estimated densities of Pygmy Nuthatch in ponderosa pine for *MBCNF* monitoring project, 2003-2006.



## Brown Creeper (*Certhia Americana*)

NM-PIF Representative Species for Spruce-Fir

The Brown Creeper is believed to be dependent on mature or old-growth coniferous forests (Cornell 2003). In 2006, we detected six Brown Creepers in three habitats on the *MBCNF* project and three individuals in mixed conifer on the *VV* project. Due to the low density of this species, estimation of population trend would require a larger number of point transects than we sampled in the past.



Map showing Index of Abundance for Brown Creeper on transects in the Carson National Forest, 2006.

## Rock Wren

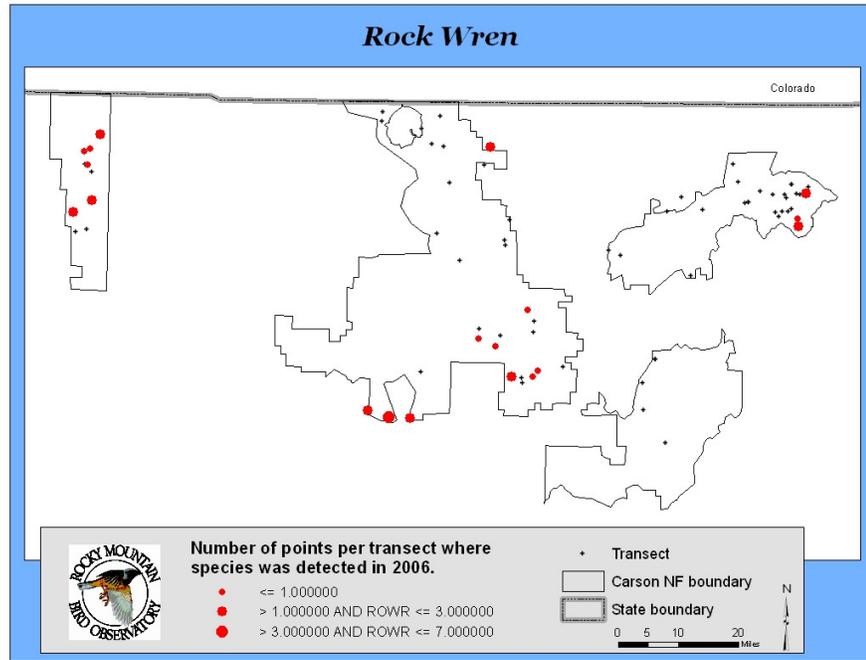
### *(Salpinctes obsoletus)*

PIF Regional Stewardship Species  
 NM-PIF Species of High Responsibility for Montane Shrub,  
 Great Basin Desert Shrub and Cliff/Cave/Rock

Rock Wrens are found in arid or semi-arid areas, in rocky canyons and cliffs, on rock slides and boulder-strewn slopes, and in arroyos with sparse vegetation (Kingery 1998). The species nests in cavities or crevices in rocks and it will sometimes “pave” the nest entrance with small, flat rocks.

In 2006, we 42 detected Rock Wrens in three habitats on the *MBCNF* project and

were able to calculate a density estimate in pinyon-juniper. We also detected six individuals on ponderosa pine transects on the *VV* project. We detect this species in sufficient numbers to monitor it effectively under the *MBCNF* project in pinyon-juniper habitat.



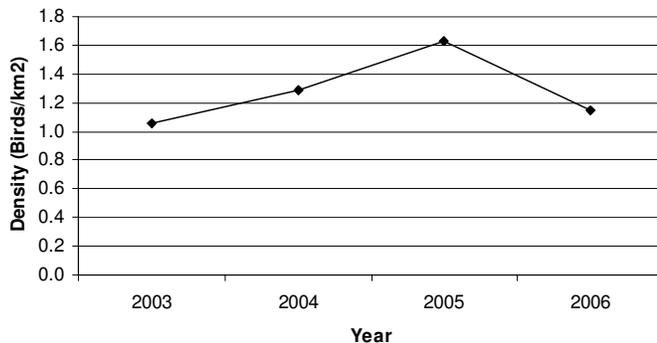
Map showing Index of Abundance for Rock Wren on transects in the Carson National Forest, 2006.

#### Habitat-specific density estimates for Rock Wren for the *MBCNF* monitoring project, 2006.

Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
PJ	1.1	0.6	2.2	41	30	36

*D* = Density (birds/square kilometer); *LCL* = lower 90% confidence interval of the density; *UCL* = upper 90% confidence interval of the density; *CV%* = coefficient of variation of the density; *n* = number of independent detections; *N* = total number of individuals detected.

Estimated densities of Rock Wren in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.

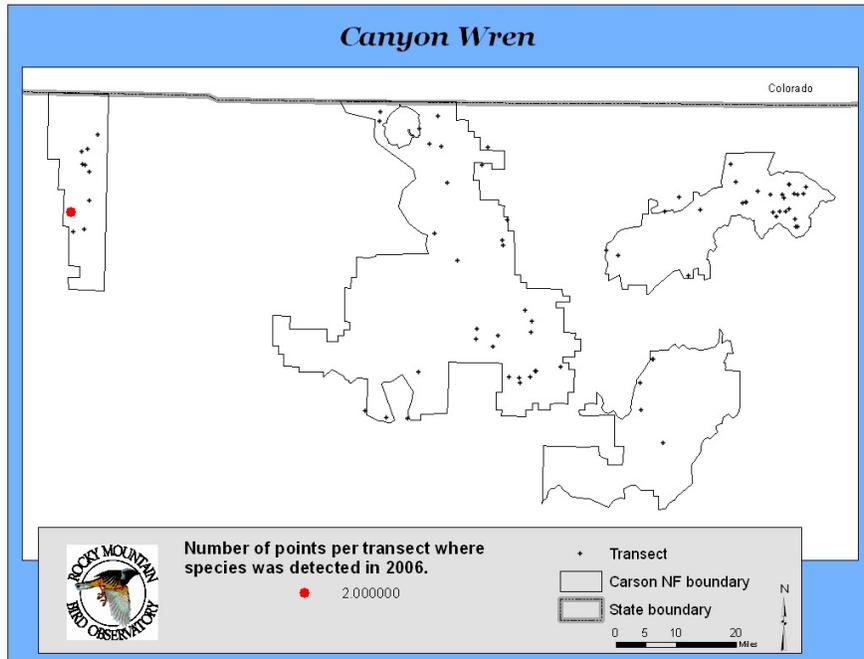


## Canyon Wren (*Catherpes mexicanus*)

PIF Species of Regional Concern  
NM-PIF Species of High Responsibility for Cliff/Cave/Rock

The Canyon Wren breeds in rocky areas with crevices for nesting and foraging for prey. Its secluded habitat generally protects the species from most human activities, except recreational rock climbing which may disturb nesting grounds.

In 2006, we detected two Canyon Wrens on one pinyon-juniper transect, PJ03, on the *MBCNF* project. We also detected this species on this transect in 2005. We detect this species every year in very low numbers in pinyon-juniper habitat on the *MBCNF* project. Canyon Wrens are too rare and localized on the CNF to be adequately monitored by point transects in any habitat; however, under the current point transect sampling design, we will be able to continue to provide location information for this species.



Map showing Index of Abundance for Canyon Wren on transects in the Carson National Forest, 2006.