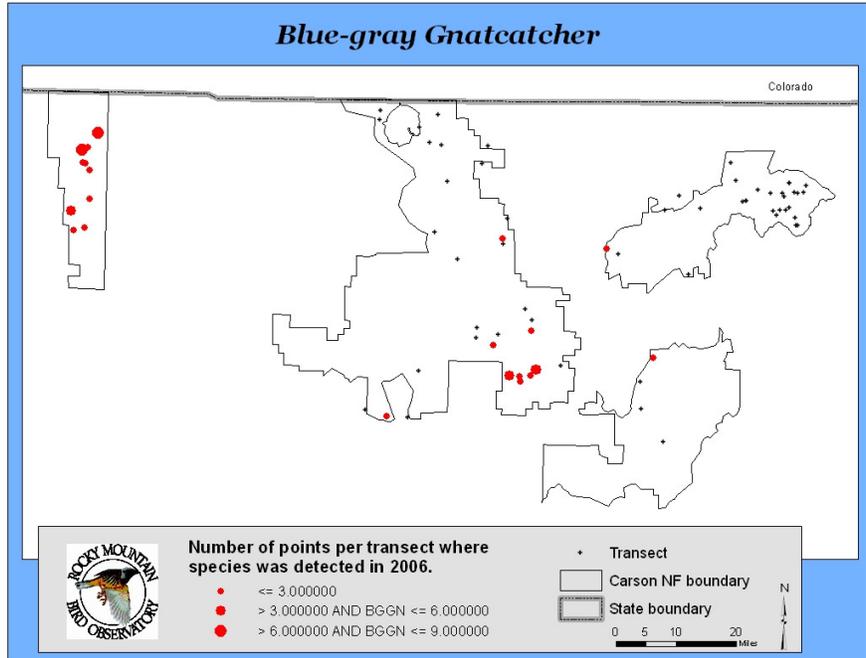


Blue-gray Gnatcatcher (*Polioptila caerulea*)

NM-PIF Habitat Representative Species

Blue-gray Gnatcatchers are most frequently encountered in pinyon-juniper habitat but can be found in any low-elevation areas with an abundance of shrubs.

In 2006, we detected 76 Blue-gray Gnatcatchers in three habitats on the *MBCNF* project. This species should be well-monitored in pinyon-juniper habitat on the *MBCNF* project.



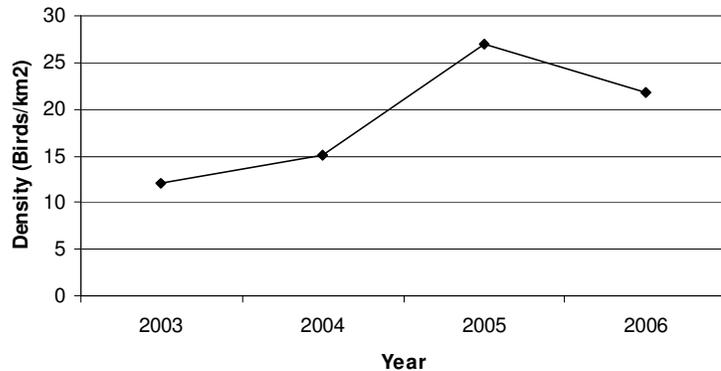
Map showing Index of Abundance for Blue-gray Gnatcatcher on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Blue-gray Gnatcatcher 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	14	35	29	59	64

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.

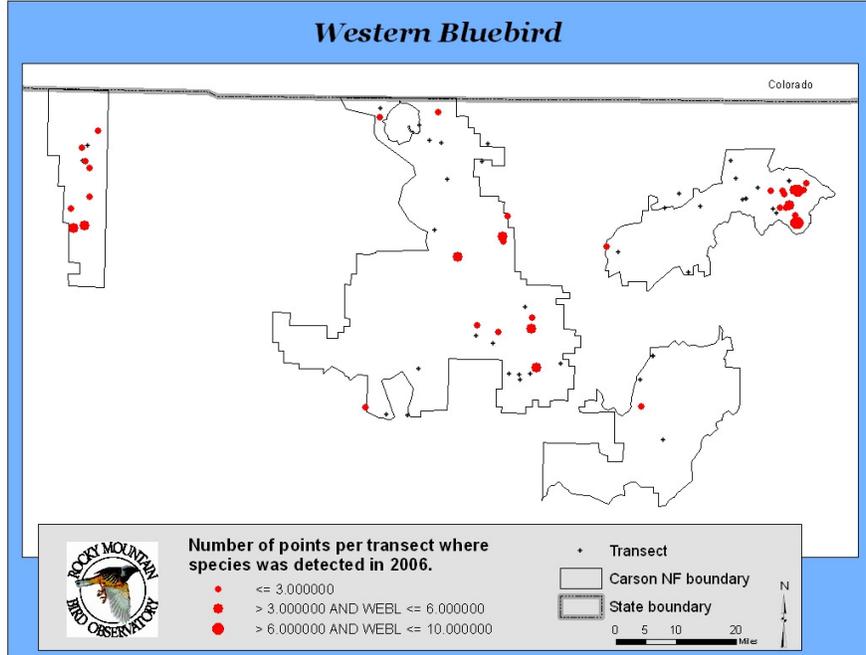
Estimated densities of Blue-gray Gnatcatcher in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.



Western Bluebird
(*Sialia mexicana*)
 PIF Regional Stewardship Species

The Western Bluebird is a cavity-nester that, in the southern Rocky Mountain area, prefers ponderosa pine habitat for nesting. This species occasionally nests in other habitats including aspen, grassland and pinyon-juniper (Kingery 1998).

We detected 112 Western Bluebirds in five habitats on the *MBCNF* project and 52 in two habitats on the *VV* project in 2006. The Western Bluebird should be effectively monitored through point transects under *MBCNF* in ponderosa pine habitat.



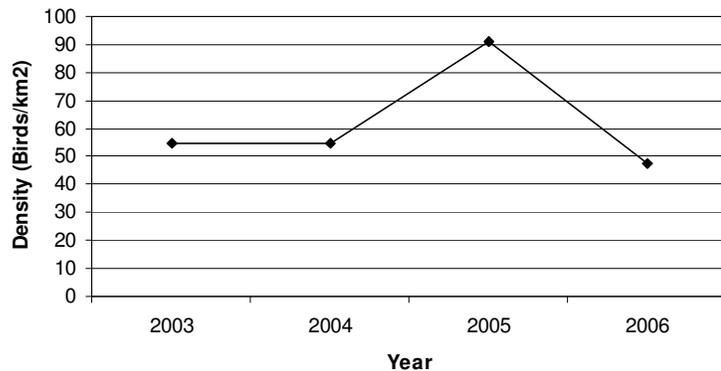
Map showing Index of Abundance for Western Bluebird on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Western Bluebird for the *MBCNF* and *VV* monitoring projects, 2006.

Project	Habitat	<i>D</i>	<i>LCL</i>	<i>UCL</i>	<i>CV%</i>	<i>n</i>	<i>N</i>
MBCNF	PP	47	26	85	36	52	64
VV	PP	63	33	119	39	43	51

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 Western Bluebird in ponderosa pine for *MBCNF* monitoring project, 2003-2006.

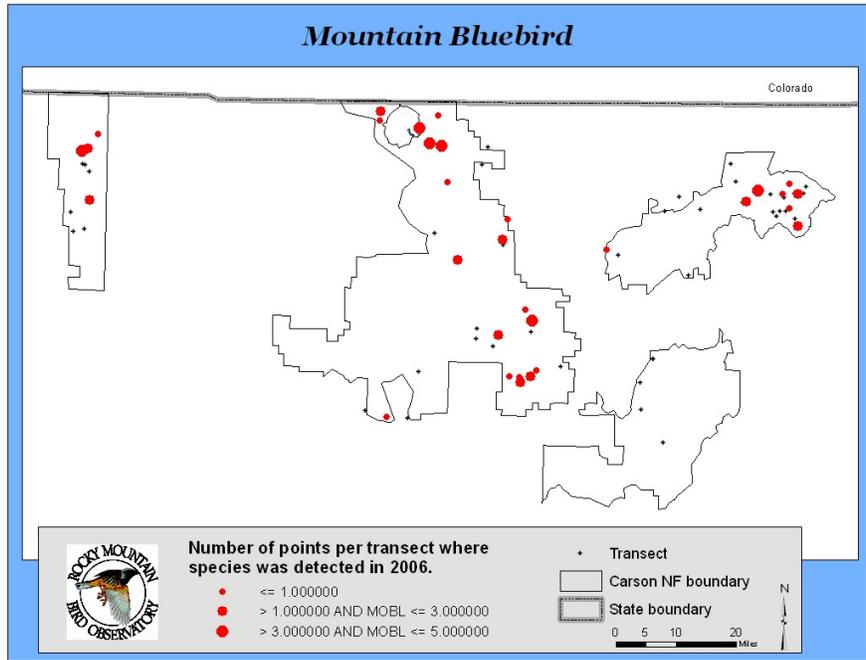


Mountain Bluebird (*Sialia currocoides*)

NM-PIF Priority management species
 PIF Species of Regional Concern
 PIF Continental Stewardship Species
 PIF Regional Stewardship Species

Mountain Bluebirds are secondary cavity nesters that rely largely on woodpecker cavities and nest boxes for nest sites, and breed most commonly in pinyon-juniper (Kingery 1998).

We recorded 75 Mountain Bluebirds on the *MBCNF* project in all seven habitats and 17 in two habitats in 2006. This species should be effectively monitored through point transects under *MBCNF* in pinyon-juniper.



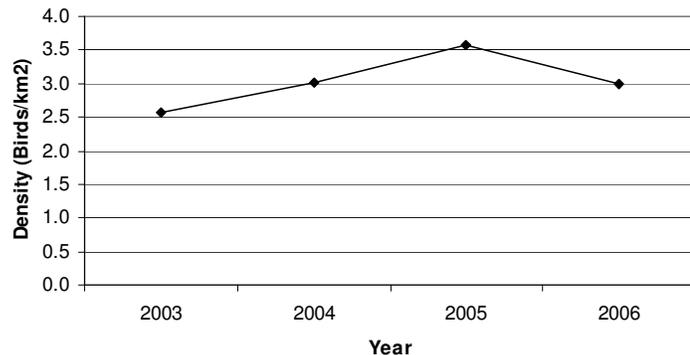
Map showing Index of Abundance for Mountain Bluebird on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Mountain Bluebird 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	3.0	1.7	5.4	37	21	30

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.

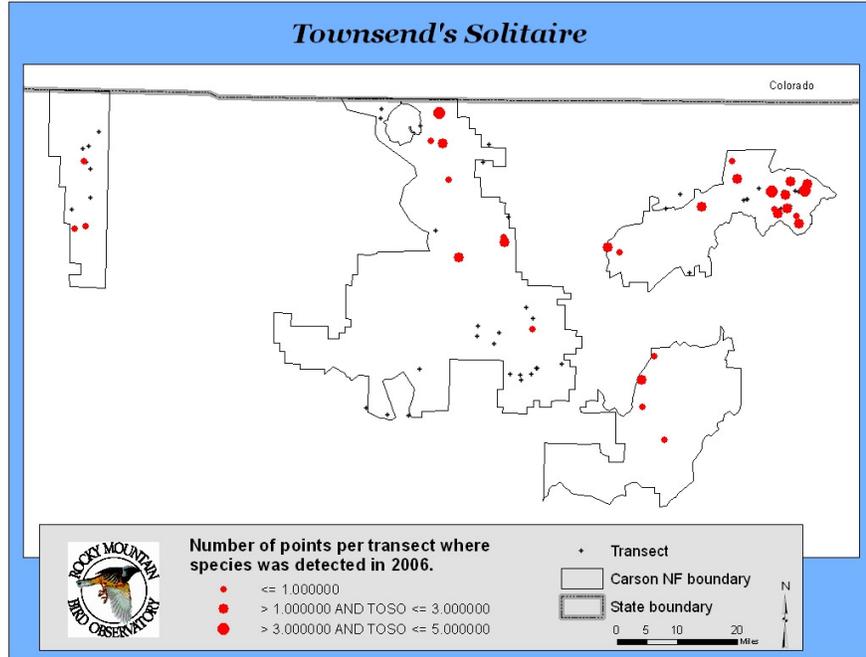
Estimated densities of Mountain Bluebird in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.



Townsend's Solitaire
(*Myadestes townsendi*)
NM-PIF Priority management species

The Townsend's Solitaire nests in all forested habitats in relatively low densities. This species nests on the ground in steep areas or in small niches on rocky cliffs.

In 2006, we detected 32 Townsend's Solitaires in five habitats on the *MBCNF* project and 30 individuals in three habitats on the *VV* project. Due to the low density of this species, estimation of population trend would require us to survey a larger number of point transects than we have in previous years.

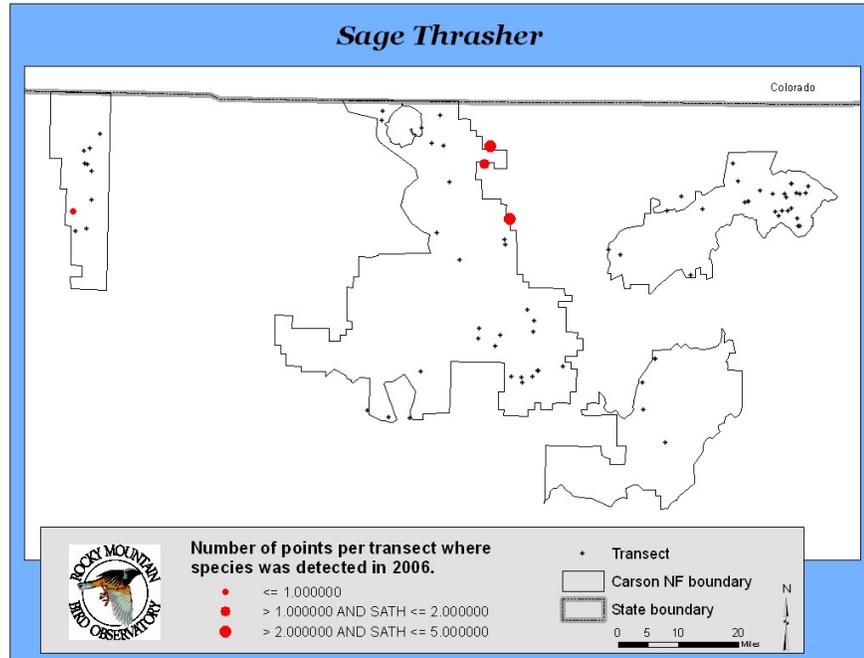


Map showing Index of Abundance for Townsend's Solitaire on transects in the Carson National Forest, 2006.

Sage Thrasher (*Oreoscoptes montanus*)

NM-PIF Highest Priority Species
NMDGF - Species of Greatest Conservation Need

Sage Thrashers are most frequently found in sage-dominated grasslands and shrubby arid lands. Detections of Sage Thrasher are too low to monitor this species in any one habitat on the *MBCNF* project. Establishing more transects in sage shrubland in the CNF may enable us to monitor this species more effectively.



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

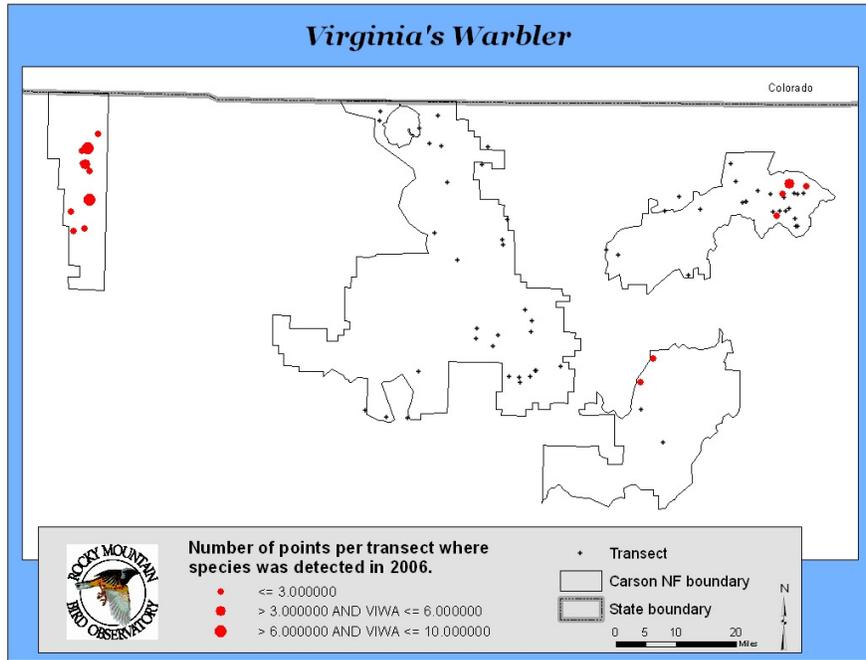
In 2006, we detected 14 Sage Thrashers in three habitats on the *MBCNF* project. Three of the transects where we detected Sage Thrasher in 2006, GR03, GR04, and SA05, we also detected the species on in 2004 and 2005.

Virginia's Warbler (*Vermivora virginiae*)

PIF Species of Continental and Regional Concern
PIF Regional Stewardship Species
NM-PIF Highest Priority Species for Ponderosa Pine
NM-PIF Priority Species for Pinyon-Juniper and Montane Shrub
USFWS Bird of Conservation Concern

The Virginia's Warbler is most often found in ponderosa pine forest, pinyon-juniper woodlands, and riparian thickets that have a well-developed herbaceous or woody understory (Kingery 1998).

In 2006, we detected 61 Virginia's Warblers in three habitats on the *MBCNF* project and 13 in two habitats on the *VV* project. The Virginia's Warbler



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

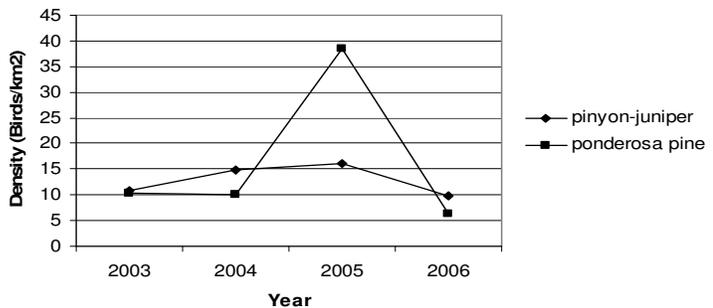
should be effectively monitored under the *MBCNF* project in pinyon-juniper habitat and possibly also in ponderosa pine.

Habitat-specific density estimates for Virginia's Warbler 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	9.9	4.3	23	53	30	38
PP	6.3	3.2	13	42	11	11

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 Virginia's Warbler in pinyon-juniper and ponderosa pine for *MBCNF* monitoring project, 2003-2006.

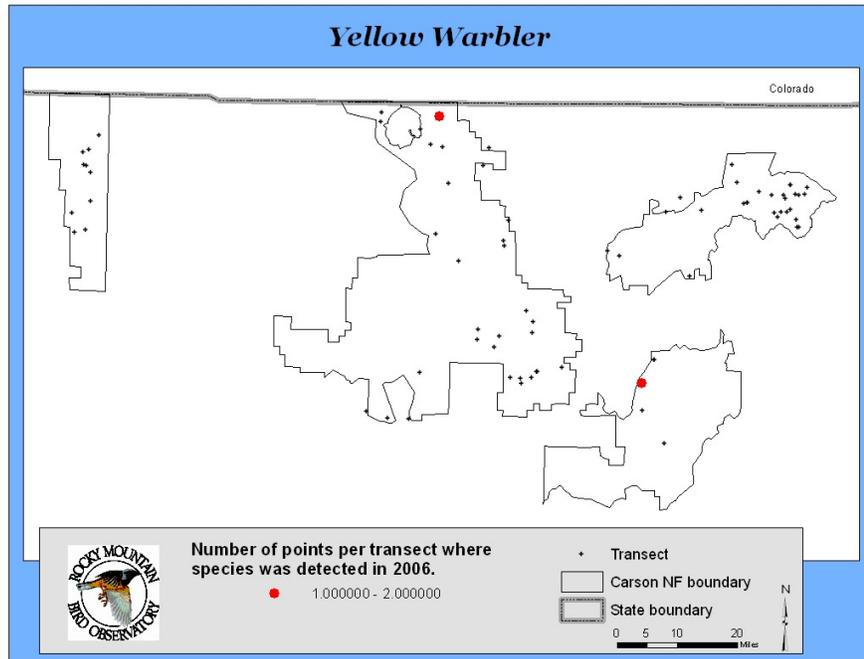


Yellow Warbler (*Dendroica petechia*)

NMDGF - Species of Greatest Conservation Need

The Yellow Warbler occurs in moist habitats with a high insect abundance and often a willow component. It will also nest in aspen stands with a multi-layered understory (Kingery 1998).

We do not survey the preferred habitat of Yellow Warbler on the *MBCNF* project; therefore, we infrequently detect this species and are not able to effectively monitor its status on the CNF. We may be able to detect this species in greater numbers by establishing more aspen and riparian transects as funding allows. However, given current funding levels we will only be able to track the presence or absence of this species in the current habitats.



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

In 2006, we detected four Yellow Warblers in two habitats on the *MBCNF* project. The two transects where we detected Yellow Warbler in 2006, MC01 and PJ45, we also detected the species on these transects in previous years.

Black-throated Gray Warbler (*Dendroica nigrescens*)

PIF Species of Regional Concern
NM-PIF Highest Priority Species for Pinyon-Juniper
USFWS Bird of Conservation Concern

The Black-throated Gray Warbler prefers large stands of pinyon-dominated woodland. Rarely is this species found outside of pinyon-juniper habitat during the breeding season. As in previous years, Black-throated Gray Warblers were one of the most abundant species in pinyon-juniper habitat in 2006 on the *MBCNF* project.

In 2006, we detected 380 Black-throated Gray Warblers in two habitats on the *MBCNF* project. We should

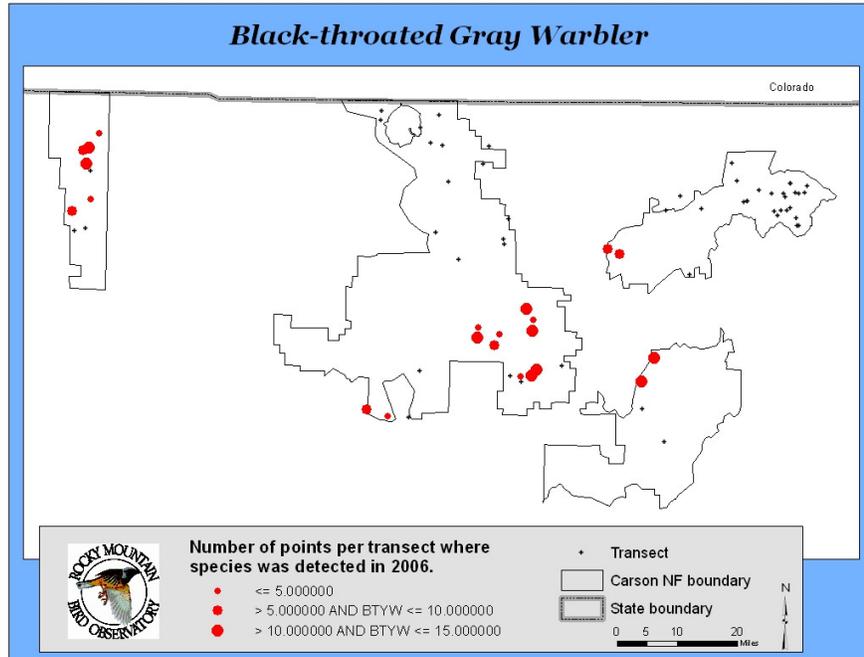
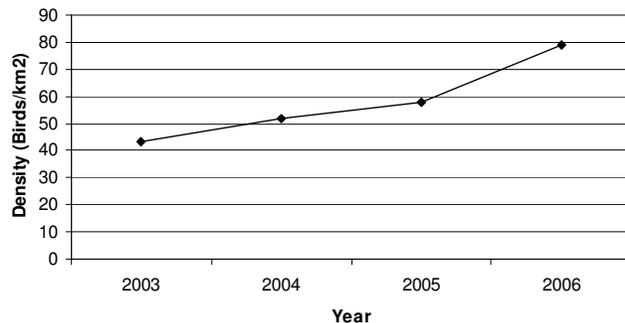
effectively monitor this species under *MBCNF* through point-transects in pinyon-juniper.

Habitat-specific density estimates for Black-throated Gray Warbler 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	79	58	107	18	312	373

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 Black-throated Gray Warbler in pinyon-juniper for *MBCNF* monitoring project, 2003-2006.



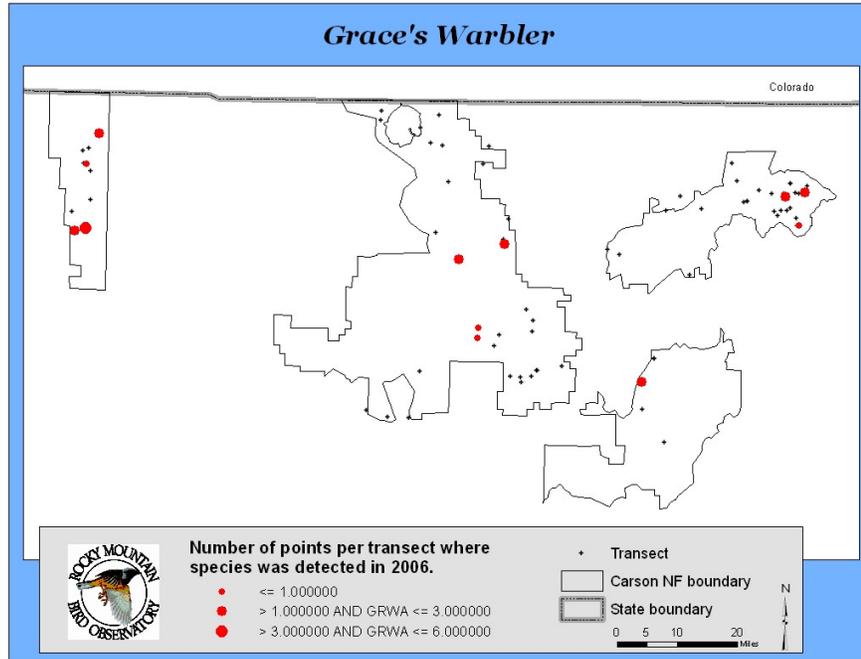
Map showing Index of Abundance for Black-throated Gray Warbler on transects in the Carson National Forest, 2006.

Grace's Warbler (*Dendroica graciae*)

PIF Species of Continental and Regional Concern
 NM-PIF Highest Priority Species
 USFWS Bird of Conservation Concern
 NMDGF - Species of Greatest Conservation Need

The Grace's Warbler breeds in older, mature ponderosa pine stands often with an understory of Gambel's oak. Since the inception of *MBCNF* we've detected Grace's Warbler in sufficient numbers in ponderosa pine habitat every year to calculate a density estimate.

In 2006, we detected 30 Grace's Warblers in two habitats on the *MBCNF* project and seven in ponderosa pine habitat on the *VV* project. The Grace's Warbler should be effectively monitored through point-transects in ponderosa pine habitat under *MBCNF*.



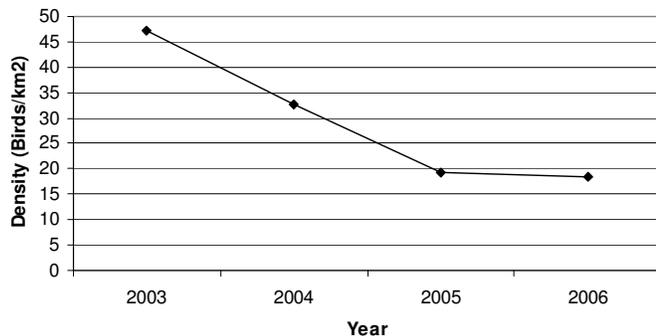
Map showing Index of Abundance for Grace's Warbler on transects in the Carson National Forest, 2006.

Habitat-specific density estimates for Grace's Warbler 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>
PP	19	6.7	51	63	22	22

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 Grace's Warbler in ponderosa pine for *MBCNF* monitoring project, 2003-2006.



Green-tailed Towhee (*Pipilo chlorurus*)

PIF Continental and Regional Stewardship Species
NM-PIF Priority Species for Great Basin Desert Shrub

At low elevations on the CNF, Green-tailed Towhees nest in more mesic areas with a high diversity of shrub species, including sagebrush and pinyon-juniper. At higher elevations it uses more xeric shrub-dominated areas.

In 2006, we detected 93 Green-tailed Towhees in all seven habitats on the *MBCNF* project and

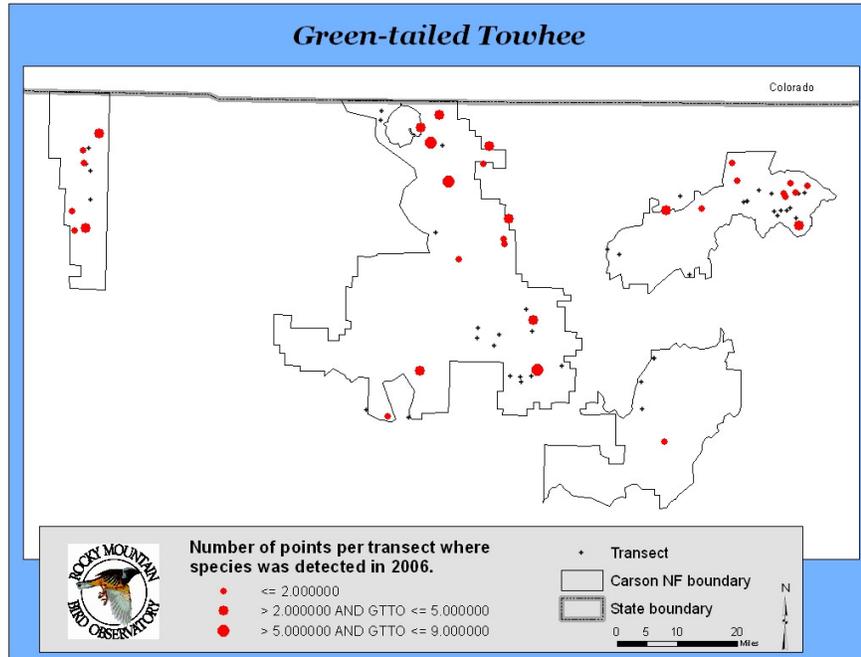
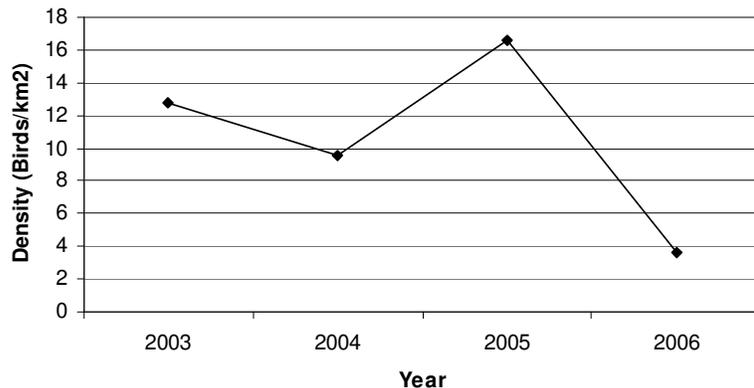
eleven in two habitats on the *VV* project. The Green-tailed Towhee should be effectively monitored in both pinyon-juniper and sage shrubland under *MBCNF*.

Habitat-specific density estimates for Green-tailed Towhee 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>
SA	3.7	1.4	9.4	48	11	13

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 Green-tailed Towhee in sage shrubland for *MBCNF* monitoring project, 2003-2006.



Map showing Index of Abundance for Green-tailed Towhee on transects in the Carson National Forest, 2006.