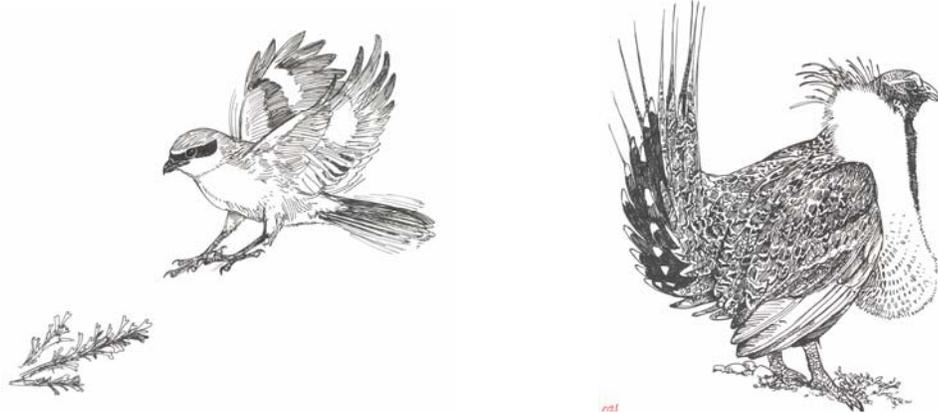


Inventory of Birds

Craters of the Moon National Monument and Preserve



August 2004

National Park Service
Craters of the Moon National Monument and Preserve

Table of Contents

EXECUTIVE SUMMARY	3
I. INTRODUCTION.....	3
II. STUDY AREA.....	4
<i>Figure 1. Map of Craters of the Moon National Monument and Preserve</i>	5
III. METHODS	6
<i>Expected Species</i>	7
IV. RESULTS	8
A. <i>Historic Information</i>	8
B. <i>Expected and Confirmed Species</i>	8
C. <i>Surveys</i>	8
V. DISCUSSION.....	8
VI. SPECIES ACCOUNTS.....	10
<i>Expected Species</i>	10
VI. LITERATURE CITED.....	34
<i>Table 1. Current status of all bird species likely to occur at Craters of the Moon.</i>	34

Executive Summary

The bird inventory at Craters of the Moon largely relied upon data compiled from existing monitoring programs. The inventory effort did require additional field surveys in habitats and during time periods not covered by existing monitoring efforts. The primary goal of the project was to confirm as many of the species that utilize the monument and preserve during their annual cycle. An additional goal included acquiring baseline data for long term monitoring.

Expected species lists were developed from published sources for the region and from historical observation records and museum specimens. The species on this list were then assigned one of four residency criteria. Species with a residency value of other than vagrant were used as the expected list. Field work was done from 2001 to 2003 and added to existing records from surveys conducted from 1991 to 2003.

This inventory produced observations for 184 out of 203 species, a confirmation rate of 91%. From the period 1990 to 2003, 184 species were verified within the park boundary. . The single most common bird was the Brewer's Sparrow. This species accounted for 1/3 of all individuals birds recorded in the park in recent years.

I. Introduction

This report summarizes the results of bird inventory work done at Craters of the Moon National Monument and Preserve from 1991 to 2003. It also includes historical records and a brief description of the status of each of the 203 species expected to occur in the park.

Much of the information comes from long term monitoring conducted by NPS staff from 1990 to 2003. In addition to monitoring data, incidental observations were compiled. NPS staff completed additional targeted surveys during the 2001 to 2003 field seasons. This inventory project in part fulfills the goals of the NPS nationwide inventory and monitoring (I&M) program. In 2000, the Upper Columbia Network initiated the biological inventory phase of the I&M program for the parks in the network. Historic information on vertebrates was compiled and lists of species expected to occur in the park were developed from this information. Some information existed for the Monument but very few bird records existed for the Preserve prior to this work. This project compliments other biological inventory work on other vertebrate groups and vascular plants in the park.

The I&M program seeks to document 90% of the vascular plant and vertebrate species expected to occur within the park boundary. Secondary goals of the

inventory include providing baseline information to guide development of the I&M program's vital signs monitoring strategy, providing both NPS and others additional information on the distribution, habitat use, and population information on biological resources.

II. Study Area

Craters of the Moon National Monument and Preserve (CRMO) stretches across of the eastern Snake River Plain of Idaho, in Lincoln, Minidoka, Blaine, Power, and Butte counties. The monument was established in 1924 and by 1996 included 53,440 acres. In 2000, 701,000 acres were added to the monument and is managed by both the National Park Service and the Bureau of Land Management (BLM). In 2002, 410,000 acres of the enlarged monument was designated a national preserve managed by the NPS. This large area consists of a rugged landscape of volcanic lava flows and sagebrush steppe. During the last 15,000 years, basaltic lava has periodically flowed from the Great Rift, a 65-mile long volcanic rift zone that lies within the monument. Lava fields encompass approximately 450,000 acres of the monument, and include 60 lava flows and 25 cinder cones. Sagebrush steppe makes up the approximately 300,000 remaining acres, much of which exists as islands within the lava flows, known as "kipukas".

CRMO extends from the foothills of the Pioneer Mountains south to the Snake River. The elevation rises from approximately 4280 feet at the southern tip to 7729 feet in the north. The climate is semi-arid, with hot and dry summers and cold and wet winters. Winter snows comprise most of the annual precipitation in the monument, especially in the north. Snow pack usually lasts most of the winter. The 30-year mean annual precipitation ranges from 15.5 inches near the Pioneer Mountains (CRMO weather station data) to 9.5 inches at Minidoka near the Snake River. The average July maximum temperature is 84°F and average January minimum temperature is 10°F (CRMO weather station data). Surface temperatures on the lava flows can reach 170°F during summer heat and winter temperatures frequently remain below freezing for long periods.

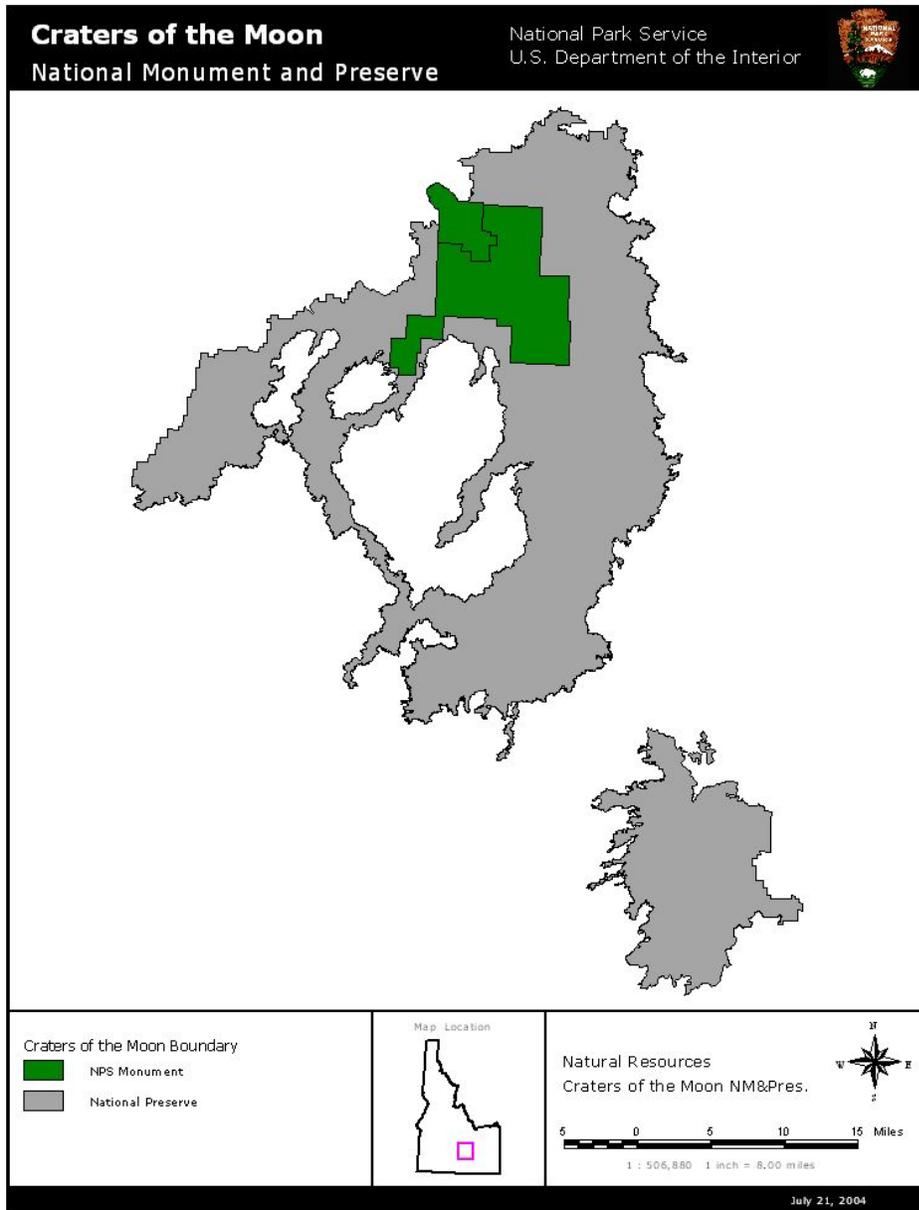


Figure 1. Map of Craters of the Moon National Monument and Preserve

Craters of the Moon supports several different vegetation types. The harsh and barren environment of the lava flows support an unusual variety of plant communities. Spring forbs include dwarf buckwheat (*Eriogonum. ovalifolium var. depressum*), silverleaf phacelia (*Phacelia hastata*), dwarf monkey flower (*Mimulus nanus*), dwarf onion (*Allium parvum*) and bitterroot (*Lewisia rediviva*). Common shrubs include fern-leaf bush (*Chamaebatiaria millefolium*), ocean spray (*Holodiscus dumosus*), dwarf goldenweed (*Haplopappus nanus*), bitterbrush (*Purshia tridentata*), and mountain big sage (*Artemisia. tridentata ssp. vaseyana*). In the northern third of the park stands of limber pine (*Pinus flexilis*) are present. Sagebrush steppe vegetation is the most widespread

plant community in the park, growing almost everywhere except the most recent lava flows, including the kipukas. Common plant species include three tip sage (*Artemisia tripartita*), big sage (*Artemisia tridentata*), bluebunch wheat grass (*Agropyron spicatum*), Idaho fescue (*Festuca idahoensis*) and prairie junegrass (*Koeleria nitida*). Several common forbs include Scarlet paintbrush (*Castilleja miniata*) and silvery lupine (*Lupinus argenteus*). Water is scarce in the monument. Small ephemeral pools form during rainfall and subsurface ice lenses maintain small seeps and pools inside lava tubes and in the bottom of depressions in lava flow. Riparian habitats are only found near the northern boundary of the monument where the lava flows and the foothills of the Pioneer Mountains meet. Small stands of aspen (*Populus tremuloides*) and Douglas' fir (*Pseudotsuga menziesei*) grow along these slopes and several semi-permanent streams flow off the mountains into the monument. A 4-acre lake and a small hot springs complex exist along highway 20 near the northern boundary and provide important sources of water. Vegetation along these riparian areas includes cow parsnip (*Heracleum lanatum*), stinging nettle (*Urtica dioica*), small leaf angelica (*Angelica pinnata*), Blackhead coneflower (*Rudbeckia occidentalis*), nettle leaf horsemint (*Agastache urticifolia*), and Sitka columbine (*Aquilegia formosa*).

Many species of introduced exotic vegetation have become established in the park during recent decades. Cheatgrass (*Bromus tectorum*) and other plants have replaced native species in many areas and this has become a dominant resource management issue for the monument. Leafy spurge (*Euphorbia esula*), knapweeds (*Centaurea* spp.), rush skeleton weed (*Lygodesmia juncea*), and thistles (*Cirsium* spp.) have been documented in the park. Of particular concern is the degree to which weeds are becoming established in the kipukas. Many of the kipukas have remained undisturbed from grazing, roads, and other sources of introduced weeds. While some exotic plants are having a noticeable impact on vertebrate populations in the monument, this impact has not been well studied for many species.

III. Methods

Inventory methods for birds were varied and largely incorporated existing monitor programs being conducted by park staff. These include existing trail and road based monitoring based on the North American Breeding Bird Survey which has been performed annually since 1997. Data was also compiled from fixed point surveys conducted from 1987 to 1996. A daily species list has been tallied since February 1999. The periodic migrant surveys were performed at select locations. These were at Lava Lake, the area adjacent to Carey Hot Springs, the Broken Top Loop Trail, and two visits to the Wood Road Kipuka Trail. The NPS also maintains a wildlife observations database for incidental wildlife observation records. In addition to the NPS programs listed above graduate students and other outside researchers were active in the park

during the 1991 to 2003 period. The data from all these sources was compiled and is summarized below.

Scientific and common names as well as the order of species follows the American Ornithologist Union Checklist 7th Edition as amended in 2003 (AOU 2003).

The NPS Monument and Preserve boundary defined the inventory area. Birds observed within 50 meters of this boundary were also included as it is assumed that birds this close will at least fly back and forth across the NPS boundary.

Expected Species

An expected species list was compiled by NPS staff from a variety of data sources. These included published checklists for Craters of the Moon National Monument, the Shoshone Field Office of BLM, Minidoka National Wildlife Refuge, Massacre Rocks State Park, and the book Idaho “Bird Species Occurrence by Lat-Long” published by Idaho State University. The expected list was then compiled from a combination of all bird species from the above sources that were likely to occur for any portion of their life cycle on NPS lands. Since all birds in Idaho are capable of flight and many migrate great distances, a migration status was assigned to each species. The status assigned to each bird was one of the following:

- A. Resident Nester: resident species that occupy the area year round
- B. Migrant: species that only briefly occupy park lands during either spring or fall migration
- C. Migrant Nester: species that nest in the area but migrate out during the non-breeding season
- D. Wintering: species which nest elsewhere but are known to winter in the area.
- E. Vagrant: vagrant species for which only a few records are know from the region. These species may occur again in the park or the surrounding region but observations are usually several years apart.

These species assignments were done by the park wildlife biologist after consultation with other ornithologists in the region. Species listed as vagrants were then dropped from the expected list for this project. Two species listed as a vagrant were identified in the mid 1990s which met the criteria for a “Present” for the purposes of this project. When birds listed as vagrant were observed they were considered expected for the purpose of further tallies for this project.

IV. Results

A. Historic Information

While no comprehensive inventory had been attempted in the Preserve, one inventory project was completed in the northern portion of the NPS monument in 1987-88 (Hoffman 1988). This project identified 64 species and compiled a list of an additional 84 species that had been previously identified in the monument. This project compiled a total list of 148 species which had been identified in the monument as of 1988. The California Museum of Vertebrate Biology and the Smithsonian Institute have a total of 11 voucher specimens of 9 species that were collected from 1921 to 1951.

B. Expected and Confirmed Species

203 species were expected to occur in the Monument and Preserve. The number of species documented from 1990 to 2003 was 184. The percentage of expected species that were confirmed was 91%.

C. Surveys

Since 1990, 95 species were confirmed during regular Breeding Bird Surveys. An additional 42 species were confirmed by the additional migrant surveys conducted for this project. Another 42 species were confirmed by the daily species tally and the incidental observations from NPS staff. Four more species were confirmed by outside researchers from Montana State University, Idaho State University, and the U.S. Fish and Wildlife Service.

V. Discussion

The ongoing bird monitoring accounted for 52% of the species confirmed. In addition to this long term program, inventory of migratory birds was initiated for this project. Migrant surveys were periodically conducted at three locations. One of these was within the Monument and the other two were in the Preserve. The two sites in the Preserve were in or adjacent to wetland habitats and were able to add to the number of water birds identified in the park. These surveys identified an additional 42 species not observed during the formal spring surveys. These accounted for 23% of the species verified for this project. Most of these species had not been previously recorded in the

park. The initiation of this project was concurrent with the designation of Craters of the Moon National Preserve which added approximately 416,000 acres to NPS management. No previous inventory attempt has yet been identified for these lands and very few incidental observations were acquired from the BLM.

The migrant surveys are particularly important because unlike most other vertebrate groups, birds are capable of flight and many species migrate long distances. Because migratory birds will stray from their “regular route” many species may only show up in particular area every few years. Even when the birds stick to the “regular route” these routes may vary between spring and fall. Therefore some species which may be regular users of the park may only occur here for a few days a year. This explains in part why nearly half (48%) of the species documented were never recorded during the breeding season monitoring. For some of these species stopover sites like Craters of the Moon may be critical to their long term survival (Kerlinger 1995). This makes inventory and monitoring difficult and time consuming because even though any one species may only be present for a few days or weeks the entire migration period may last up to 3 months in both spring and fall. This made the weekly visits to prime stopover locations important. While many migrant species were recorded on multiple surveys many others were only recorded once or twice during the entire project. In order to effectively monitor avian resources long term, it will necessary to include additional surveys in addition to the ongoing breeding season survey. These may include the migrants as discussed above but should also include species specific surveys. Species or group specific surveys are needed to target specific species or groups that are not easily recorded on the generalist surveys currently be done. Some of these are of specific conservation concern and include species such as birds of prey and grouse.

This species is seen on Lava Lake a few times a year.

Cinnamon Teal *Anas cyanoptera* Present Uncommon Unknown

This species is a regular visitor to the Lava Lake area in the spring. It is known to nest on small ephemeral ponds and occasional nesting in the park is likely.

Northern Shoveler *Anas clypeata* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Northern Pintail *Anas acuta* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Green-winged Teal *Anas crecca* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Canvasback *Aythya valisineria* Present Rare Migrant

This species is seen on Lava Lake once or twice a year.

Redhead *Aythya americana* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Ring-necked Duck *Aythya collaris* Present Common Migrant

Is a frequent visitor to the Lava Lake area in spring and fall.

Lesser Scaup *Aythya affinis* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Bufflehead *Bucephala albeola* Present Uncommon Migrant

This species is a regular spring and fall visitor to the area around Lava Lake.

Common Goldeneye *Bucephala clangula* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Ruddy Duck *Oxyura jamaicensis* Present Uncommon Migrant

This species is seen on Lava Lake a few times a year.

Chukar *Alectoris chukar* Present Uncommon Unknown

This exotic species is sporadically encountered in the Pioneer Mountains region of the park.

Gray Partridge *Perdix perdix* Present Uncommon Unknown

This exotic species is sporadically encountered in shrubsteppe areas of the park.

Ring-necked Pheasant *Phasianus colchicus* Present Rare Unknown

This exotic species is recorded once or twice a year throughout the park.

Ruffed Grouse *Bonasa umbellus* Present Occasional Unknown

This species is recorded in the Leech Creek drainage area every few years. It was last recorded in 1999.

Greater Sage-grouse *Centrocercus urophasianus* Present Uncommon
Breeder

Several lek sites are known from the preserve and the species is regularly observed in late summer and fall. A nest was found in the monument in 2000.

Blue Grouse *Dendragapus obscurus* Present Common Breeder

This species is frequently encountered in the Little Cottonwood and Leech Creek areas. Hens with broods are frequently encountered in the spring and early summer. The species occasionally winters in the vicinity of the visitor center.

Sharp-tailed Grouse *Tympanuchus phasianellus* Probably Present

No records from NPS managed lands but the Idaho Department of Fish and Game harvest records document birds in the vicinity of the Wapi flow although the exact location is uncertain.

Pied Billed Grebe *Podilymbus podiceps* Present Common Unknown

This species is a regular visitor to Preserve portion of Lava Lake.

Eared Grebe *Podiceps nigricollis* Present Rare Unknown

This species is seen on Lava Lake a few times a year.

Double Crested Cormorant *Phalacrocorax auritus* Present Occasional Unknown

This species was recorded on Lava Lake during 2002. It is seen in flight over the Preserve once or twice a year.

Great Blue Heron *Ardea herodias* Present Occasional Unknown

This species was documented resting in the campground in 1998. It has been recorded on the flow adjacent to Lava Lake, Carey Lake and Huff Creek.

White-faced Ibis *Plegadis chihi* Present Occasional Unknown

A flock was observed on the Carey Flow during 2003.

Turkey Vulture *Cathartes aura* Present Common Breeder

This species is common summer resident in the area around the loop road. It has nested on rafted blocks in the Devil's Orchard area.

Osprey *Pandion haliaetus* Present Occasional Migrant

This species has been recorded in the loop road area 4 times from 1994 to 2002. It will use the pine stands in this area for resting during migration.

Bald Eagle *Haliaeetus leucocephalus* Present Uncommon Unknown

This species is a regular winter visitor to the west side of the park. A pair which nest west of the park also occasionally will roost in the park and use hunting perches in the flows near Carey Lake.

Northern Harrier *Circus cyaneus* Present Common Breeder

Is a common resident of many of the shrubsteppe areas. It was recorded nesting in the Little Cottonwood sinks in 1999-2001.

Sharp-shinned Hawk *Accipiter striatus* Present Uncommon Breeder

Most years nests can be found in Little Cottonwood and Leech Creek riparian areas.

Cooper's Hawk *Accipiter cooperii* Present Uncommon Breeder

Most years nests can be found in Little Cottonwood and Leech Creek riparian areas.

Northern Goshawk *Accipiter gentiles* Present Rare Migrant

One or two a year are seen during spring or fall migration.

Swainson's Hawk *Buteo swainsoni* Present Uncommon Unknown

A few are seen during the summer. It likely nests in the park, although no active nests have yet been located.

Red-tailed Hawk *Buteo jamaicensis* Present Common Breeder

This species is common to rare in most habitats in the park. It is a regular nester.

Ferruginous Hawk *Buteo regalis* Present Rare Breeder

This species is widespread but only a few are seen each year. A nest was found near Carey Kipuka in May 1998.

Rough-legged Hawk *Buteo lagopus* Present Uncommon Resident

Is a regular winter visitor from October to early April.

Golden Eagle *Aquila chrysaetos* Present Uncommon Breeder

Several are seen every year. The species nested in Little Cottonwood Canyon in 1997 and 2003.

American Kestrel *Falco sparverius* Present Common Breeder

This species is frequently encountered in areas with limber pine or junipers, or aspen. Nests can be located most years.

Merlin *Falco columarius* Present Rare Migrant

This species is seen every few years in the spring and fall migration periods.

Gyrfalcon *Falco rusticolous* Probably Present

This is rare wintering species in the immediate area. One bird was observed in Carey within 1 mile of the preserve in December of 2002.

Peregrine Falcon *Falco peregrinus* Present Rare Unknown

This species is recorded a few times a year. There is one breeding season record and the species may eventually become a breeder.

Prairie Falcon *Falco mexicanus* Present Uncommon Breeder

Active nests have been documented inside Echo Crater for several years. The species is sporadic elsewhere.

Viginia Rail *Rallus limicola* Present Uncommon Unknown

This species was seen in 2002 and 2003 in the vegetation adjacent to the Carey Flow in the hot springs area.

Sora *Porzana carolina* Present Occasional Unknown

This species has been documented twice from the park. One was found dead on the bone yard service road in 1993. A second bird was calling from the rushes adjacent to Carey Flow in the hot springs area.

American Coot *Fulica Americana* Present Common Unknown

Is a frequently occupant of Lava Lake. It probably a nests in the adjacent preserve. Although, no nests have currently been documented, courtship behavior is regularly observed.

Sandhill Crane *Grus canadensis* Present Uncommon Breeder

This species has sporadic records in the areas on the west side of the preserve. One nest was found in the preserve adjacent to Lava Lake in 2002.

Killdeer *Charadrius vociferous* Present Common Migrant

This species is frequently encountered around the visitor center and other sites on the west side of the park during spring and fall.

American Avocet *Recurvirostra Americana* Present Rare Migrant

This species has been documented adjacent to Lava Lake.

Greater Yellowlegs *Tringa melanoleuca* Present Rare Migrant

This species was recorded in 2003 adjacent to Lava Lake.

Willet *Catoptrophorus semipalmatus* Present Rare Migrant

Two records from 2001 and 2003 were documented on the west side of the preserve adjacent to agricultural land.

Spotted Sandpiper *Actitis macularia* Present Rare Migrant

This species is generally seen once or twice a year during migration.

Whimbrel *Numenius phaeopus* Present Occasional Migrant

This species has been observed in the vicinity of Lava Lake during migration.

Long-billed Curlew *Numenius americanus* Present Uncommon Breeder

This species is seen a few times a year in the shrub steppe and grass lands near the flow edges. It is regularly seen in the spring over the lava flows near Huff Creek.

Long-billed Dowitcher *Limnodromus scolopaceus* Present Occasional Migrant

This species was recorded in the vicinity of Lava Lake during 2002.

Wilson's Snipe *Gallinago delicata* Present Uncommon
Unknown

This species has been observed in the breeding season in the Leech Creek Sink and may be a breeder there and other moist areas. It is also been observed in courtship flights over the flows adjacent to Big Cottonwood Creek, Huff Creek and the hot springs.

Wilson's Phalarope *Phalaropus tricolor* Present Occasional Migrant

During 2002 this species was found in the preserve during migration. It is an Arctic to sub-Arctic nester which migrates through this area. Additional migration period observations are probable

Franklin's Gull *Larus pipixcan* Present Occasional Resident

This species has been seen near the Broken Top Cinder Cone. In 2003 it was also documented feeding on the Wood Road Kipuka.

Ring-billed Gull *Larus delawarensis* Present Rare Resident

This species is observed only rarely in most of the park. It can be more common near water sources such as Carey WMA and Lava Lake.

California Gull *Larus californicus* Present Rare Resident

This species is observed only rarely in most of the park. It can be more common near water sources such as Carey WMA and Lava Lake.

Caspian Tern *Sterna caspia* Probably Present

This species is a documented nester in the Carey Wildlife Management Area which has 1.5 miles of shared boundary with CRMO. It likely at least occasionally perches in the Preserve.

Forster's Tern *Sterna forsteri* Probably present

This species is a documented nester in the Carey Wildlife Management Area which has 1.5 miles of shared boundary with CRMO. It likely at least occasionally perches in the Preserve.

Rock Pigeon *Columbia livia* Present Common Breeder

Numerous nests have been located in the Caves Area and the Kings Bowl Flow. The species is also a permanent resident of these areas and is sporadic in many other regions of the park.

Mourning Dove *Zenaida macroura* Present Common Breeder

This species is a common nester throughout the park. It has been recorded in most habitats parkwide.

Barn Owl *Tyto alba* Probably present

This species has been documented nesting on the Shoshone Field Office and at Massacre Rocks State Park (within 7 miles of CRMO). Given the highly migratory nature of this species, it is highly probably the species periodically enters the park and may nest in the southern portions of the Preserve.

Western Screech-owl *Megascops kennicottii* Probably Present

This species is highly probable to occur in the Pioneer Mountains sections of the park. It is known to nest in Arco and along the Little Wood River near the park.

Great Horned Owl *Bubo virginianus* Present Uncommon Breeder

This species is encountered a few times a year. It can be found in most habitats. One nest in a cave in the Blue Dragon Lava Flow has been active every year of this project.

Snowy Owl *Bubo scandiacus* Present Occasional Migrant

A single bird was seen wintering in the park in 1999.

Burrowing Owl *Athene cunicularia* Present Rare Breeder

This species was documented breeding the park in 2001. This migratory species is potentially a visitor to much of the shrubsteppe areas within CRMO.

Long-eared Owl *Asio otus* Present Occasional Breeder

This species has not been positively identified in recent years. They are several records from the northwest corner of CRMO with nests found as recently as 1994.

Short-eared Owl *Asio flammeus* Present Uncommon Resident

This species is observed several times a year. No nests have been found to date but it probably nests in the monument. The nests are generally well hidden and nests and young can be difficult to locate even where breeding is common.

Common Nighthawk *Chordeiles minor* Present Common Breeder

This is a common summer resident throughout the park. Nests have been found in the area around the loop road.

Common Poorwill *Phalaenoptilus nuttallii* Present Common Breeder

This is a common summer resident throughout the park. Nests have been found in the area around the loop road.

White-throated Swift *Aeronautes saxatalis* Present Occasional Unknown

This species has been documented twice at CRMO, once in 1987 and again in 1999. This species can be difficult to identify and may be more regular than the limited sightings suggest.

Black-chinned Hummingbird *Archilochus alexandri* Present Uncommon Unknown

Several birds are seen most years. Most individuals of this species are likely migrants but a few breeding season observations are made most years. No nests have been found but the species likely nests in low numbers in areas of the park with limber pine and juniper.

Calliope Hummingbird *Stellula calliope* Present Uncommon Unknown

Several birds are seen most years. Most individuals of this species are likely migrants but a few breeding season observations are made most years. No nests have been found but the species likely nests in low numbers in areas of the park with limber pine and juniper.

Broad-tailed Hummingbird *Selasphorus platycercus* Present Occasional Unknown

This species has been recorded a few times in the vicinity of the visitor center. It typically nests in dry forest and may nest in low numbers at CRMO.

Rufous Hummingbird *Selasphorus rufus* Present Common Breeder

This species can be seen regularly in the limber pine stands during the summer. A few nests have been found in the area north of Big Cinder Butte.

Belted Kingfisher *Ceryle alcyon* Probably Present

This species has been observed along Huff Creek just outside the park. This species likely uses the area around Huff Creek and the Little Wood River during periods of high water. Four additional records exist prior to 1974 along Little Cottonwood Creek during a period of beaver activity and associated ponds.

Lewis's Woodpecker *Melanerpes lewis* Present Uncommon Breeder

This species is seen several times a year in the northern portion of CRMO. Nests have been found in the both limber pine and riparian woodlands.

Williamson's Sapsucker *Sphyrapicus thyroideus* Present Occasional Migrant

This species is seen every couple of years in limber pine during the spring migration period.

Red-naped Sapsucker *Sphyrapicus nuchalis* Present Uncommon Breeder

This species is a common migrant through the area around the visitor center. A smaller number of birds remain to nest in limber pine and riparian woodlands.

Downy Woodpecker *Picoides pubescens* Present Uncommon Unknown

This species can be seen in the limber pine stands at any time of year. It may nest in CRMO but nest holes have not yet been positively identified.

Hairy Woodpecker *Picoides villosus* Present Uncommon Unknown

This species can be seen in the limber pine and Douglas-fir stands at any time of year. It may nest in CRMO but nest holes have not yet been positively identified.

Northern Flicker *Colaptes auratus* Present Common Breeder

This species is common resident in all woodland types at CRMO. Several nests have been recorded.

Olive-sided Flycatcher *Contopus cooperi* Present Uncommon Unknown

This species is regularly recorded on the Wilderness Trail and the Little Cottonwood BBS transects. It can be seen in many limber pine stands. Actual nests have not been located but many breeding season records have been documented.

Western Wood-pewee *Contopus sordidulus* Present Uncommon Unknown

This species is regularly recorded on the Wilderness, Wood Road, and the Little Cottonwood BBS transects. It can be seen in many limber pine stands. Actual nests have not been located but many breeding season records have been documented.

Willow Flycatcher *Empidonax traillii* Present Occasional Migrant

This species has been recorded in the riparian strips and one record near the visitor center in 1995.

Hammond's Flycatcher *Empidonax hammondi* Present Uncommon Unknown

This species is seen during the summer in the Little Cottonwood and Leech Creek riparian areas. They are several breeding season records but no nests have been located. The species probably does nest at CRMO but the nests can be difficult to locate.

Gray Flycatcher *Empidonax wrightii* Present Occasional Unknown

This species is recorded once or twice a year most years. Thus far the observations have been in the northern portion of CRMO but much suitable habitat exists on the Wapi Flow and the species probably at least occasionally occurs there as well.

Dusky Flycatcher *Empidonax oberholseri* Present Uncommon Unknown

This species is a regular occupant in the Little Cottonwood and Leech Creek riparian areas. They are several breeding season records but no nests have been located. The species probably does nest at CRMO but the nests can be difficult to locate.

Cordilleran Flycatcher *Empidonax occidentalis* Present Uncommon Unknown

This species is seen once or twice a summer in the Little Cottonwood and Leech Creek riparian areas.

Say's Phoebe *Sayornis saya* Present Uncommon Breeder

This species is recorded several times a year. It can be found in most shrubsteppe types and has been recorded nesting in CRMO.

Western Kingbird *Tyrannus verticalis* Present Uncommon Unknown

This species is recorded several times a year. It can be found in most shrubsteppe types in CRMO.

Eastern Kingbird *Tyrannus tyrannus* Present Rare Unknown

This species is recorded once or twice a year. No nests have been located at CRMO but breeding season records have been documented in suitable habitat.

Loggerhead Shrike *Lanius ludovicianus* Present Uncommon Breeder

This species is found in mature shrubsteppe and has been recorded nesting at CRMO.

Northern Shrike *Lanius excubitor* Present Uncommon Migrant

This is a boreal to Arctic species which is recorded several times most winters at CRMO.

Plumbeous Vireo *Vireo plumbeus* Present Uncommon Breeder

This species has been documented nesting in Little Cottonwood Creek. This status of this species is uncertain in the region. The species was only recently elevated to a full species and the identity of records prior to 1998 is uncertain. CRMO is in the documented range of overlap with the Cassin's Vireo and vocal identification of the two is difficult. Visual identification indicates that both species nest in CRMO.

Cassin's Vireo *Vireo cassini* Present Uncommon Breeder

This species has been documented nesting in Little Cottonwood and Leech Creeks. The status of this species is uncertain in the region. The species was only recently elevated to a full species and the identity of records prior to 1998 is uncertain. CRMO is in the documented range of overlap with the Plumbeous Vireo and vocal identification of the two is difficult. Visual identification indicates that both species nest in CRMO.

Warbling Vireo *Vireo gilvus* Present Uncommon Breeder

This species is a regular occurrence in Little Cottonwood and Leech Creek riparian zones. It has been documented nesting in Little Cottonwood. Although more common in riparian zones, it is also occasionally documented in limber pine stands.

Steller's Jay *Cyanocitta stelleri* Present Rare Unknown

This species is observed a few times a year in the Doug-fir stands in the northwest portion of CRMO. It has been documented a few times in limber pine as well.

Western Scrub-Jay *Aphelocoma californica* Probably present

This species has not been documented to date in CRMO. It has been documented by the state and is well known at Massacre Rocks State Park. This is similar habitat to what is available in the Preserve 7 miles to the northwest.

Pinyon Jay *Gymnorhinus cyanocephalus* Present Occasional Unknown

This species is found in the campground area every few years. These flocks may stay for most of the winter in some years. The species has also been documented on the Wapi Flow during the spring breeding season.

Clark's Nutcracker *Nucifraga columbiana* Present Common Breeder

This species is seasonally abundant in any of the limber pine areas in the north half of CRMO. It is a regular breeder and young birds are seen every year.

Black-billed Magpie *Pica hudsonia* Present Common Breeder

This species can be found in most of CRMO. It may locally or seasonally common to rare.

American Crow *Corvus brachyrhynchos* Present Uncommon Unknown

This species is seen most often on the west side of CRMO near Hwy 93 and Carey. Nesting has not been confirmed but probably occurs on a regular basis.

Common Raven *Corvus corax* Present Common Breeder

This species is seen daily around the visitor center, and can be found in most areas. Nesting has been observed on several occasions and locations.

Horned Lark *Eremophila alpestris* Present Common Unknown

This species is a common year round resident in many of the shrubsteppe regions. It almost certainly nests in CRMO but nests are very well concealed and difficult to locate.

Tree Swallow *Tachycineta bicolor* Present Uncommon Unknown

This species is seen foraging over the Carey Wildlife Management Area during the breeding season and probably nests in the adjacent portion of the Preserve. It is also a regular migrant along the Goodale's Cutoff. There are also a few breeding season records from the loop road area.

Violet-green Swallow *Tachycineta thalassina* Present Abundant Breeder

This may be the most common bird on the open lava fields. It has been recorded nesting in gas bubbles in pahoehoe flows.

Northern Rough-winged Swallow *Stelgidopteryx serripennis* Present Uncommon Unknown

This species is recorded a few times every year during the migration period. It is a regular breeding season visitor at the Carey Wildlife Management Area and may nest in the adjacent Preserve.

Bank Swallow *Riparia riparia* Present Uncommon Migrant

This species has been documented at CRMO only during the migration period. Since little to no suitable embankments for nesting exist here, breeding in the park is unlikely.

Cliff Swallow *Petrochelidon pyrrhonota* Probably Present

This species has not yet been documented at CRMO but it is a common migrant at the Carey Wildlife Management Area. The Carey WMA shares a boundary with the Preserve and it is likely that this species utilizes the Preserve during migration.

Barn Swallow *Hirundo rustica* Present Common Breeder

This species is a common breeder in the visitor center area. It is also frequently encountered along much of the western edge of CRMO.

Black-capped Chickadee *Poecile atricapillus* Present Common Breeder

This species is a common resident of limber pine stands and riparian areas. Nesting has been confirmed.

Mountain Chickadee *Poecile gambeli* Present Common Breeder

This species is a common year-round resident in the limber pine areas. Nesting has also been verified.

Juniper Titmouse *Baeolophus ridgwayi* Probably present

This species has not been documented to date in CRMO. It has been documented by the state and is well known year round resident in Massacre Rocks State Park. This is similar habitat to what is available in the Preserve 7 miles to the northwest.

Bushtit *Psaltriparus minimus* Probably present

This species has not been documented to date in CRMO. It has been documented by the state and is well known at Massacre Rocks State Park. This is similar habitat to what is available in the Preserve 7 miles to the northwest.

Red-breasted Nuthatch *Sitta canadensis* Present Uncommon Breeder

This species is documented several times year in the limber pine and Doug-fir stands in the northern portion of CRMO. Nesting has been verified.

White-breasted Nuthatch *Sitta carolinensis* Present Uncommon Breeder

This species is documented several times year in the limber pine and poplar stands in the northern portion of CRMO. Nesting has been verified.

Brown Creeper *Certhia Americana* Present Rare Migrant

This species is found in limber pine and Douglas-fir stands a few times most winters.

Rock Wren *Salpinctes obsoletus* Present Common Breeder

This species is a common nester on the lava flows and other rock formations. This is the 2nd most common species recorded on low vegetation lava flows on the BBS transects.

Canyon Wren *Catherpes mexicanus* Present Occasional M

This species was recorded for the first time at Craters during a migrant survey on the Carey Flow near the hot springs. This was in October 2003 and was most likely a migratory individual.

House Wren *Troglodytes aedon* Present Common Breeder

This species is a fairly common nesting in many aspen and cottonwood stands in the northern portion of CRMO.

Winter Wren *Troglodytes troglodytes* Present Rare Unknown

This species is found in limber pine and Douglas-fir stands most winters. There is also one breeding season record from the Little Cottonwood Douglas-fir stand.

Marsh Wren *Cistothorus palustris* Present Uncommon Unknown

This species is seen most years in the vicinity of the hot springs and has been recorded in the vegetation surrounding Lava Lake.

Golden-crowned Kinglet *Regulus satrapa* Present Uncommon Migrant

This species is found in the Douglas-fir and limber pine stands. It is found most often in the migration period.

Ruby-crowned Kinglet *Regulus calendula* Present Uncommon Unknown

This species is found in limber pine and Douglas-fir stands at any time of year. Nests have not been found but it is probable that this species nests in CRMO.

Blue-gray Gnatcatcher *Polioptila caerulea* Present Uncommon Breeder

This species has been found in limber pine in the loop road area. In 2003 it was also found in the southwest corner of the Wapi Flow. It has been found feeding young on the Broken Top cinder cone.

Mountain Bluebird *Sialia currucoides* Present Common Breeder

This species is a common nester in much of the northern half park. It is more rare to the south where starlings become more common.

Townsend's Solitaire *Myadestes townsendi* Present Uncommon Breeder

This species is seen several times a year. Many of the observations are during the migration period but a few are during the breeding season and one nest was found in 1987.

Swainson's Thrush *Catharus ustulatus* Present Uncommon Unknown

This species is recorded on the Little Cottonwood BBS transect but nesting has not been verified. It may nest in the riparian woodland in that area. It is also regularly seen in limber pine areas during migration.

Hermit Thrush *Catharus guttatus* Present Uncommon Unknown

This species is recorded on the Little Cottonwood BBS transect but nesting has not been verified. It may nest in the riparian woodland in that area. It is regularly seen in limber pine areas during migration.

American Robin *Turdus migratorius* Present Common Breeder

This species is a common nester in the northern portion of CRMO.

Varied Thrush *Ixoreus naevius* Present Occasional Migrant

There are 10 migration period records for this species from 1987 to 2000.

Gray Catbird *Dumetella carolinensis* Present Occasional Unknown

This species is known to be highly nomadic and inconsistent at a particular location from year to year. There are 4 records since 1990 in the northern portion of the monument. Two of these were breeding season records and the species may occasionally nest in the Pioneer Mountains.

Northern Mockingbird *Mimus polyglottos* Present Occasional Unknown

A few individuals are reported from Eastern Idaho most years. This species was recorded for the first time during the bird survey on the Wood Road Trail in June of 2004.

Sage Thrasher *Oreoscoptes montanus* Present Common Breeder

This is one of the 5 most common birds recorded on the BBS transect at CRMO. This species is found in most sage types.

Brown Thrasher *Toxostoma rufum* Present Occasional Migrant

A few individuals are recorded in eastern Idaho most years. It has been recorded twice at CRMO. The most recent record was in October of 1994.

European Starling *Sturnus vulgaris* Present Common Breeder

Is a common breeder on the Wapi and King's Bowl Flow. Wintering flocks of hundreds to thousands of birds have been documented. This species is still rare to uncommon in the northern portion of CRMO.

American Pipit *Anthus rubescens* Probably Present

This is an arctic and alpine breeder which regularly winters in much of southern Idaho. There are five records of this species at CRMO from 1967 to 1987. It likely still occasionally migrates through CRMO.

Bohemian Waxwing *Bombycilla garrulous* Present Uncommon Migrant

This species is found most years during fall migration. In January 2000 a flock of 500+ birds was found wintering on the Wood Road Kipuka.

Cedar Waxwing *Bombycilla cedrorum* Present Uncommon Unknown

This species is found a few times a year during the migration period. Smaller numbers are also seen in wooded areas during the breeding season but nesting has not been verified.

Orange-crowned Warbler *Vermivora celata* Present Uncommon Unknown

Nesting has not yet been verified but this species is found in wooded areas during the breeding season. It also recorded in higher numbers during the migration period.

Nashville Warbler *Vermivora ruficapilla* Present Uncommon Unknown

Several records for this species were documented from 1968 to 1974. The species was relocated in riparian shrubs along Lava Lake and Little Cottonwood Creek during 2002.

Yellow Warbler *Dendroica petechia* Present Uncommon Unknown

This species is seen several times each summer and may breed in the limber pine or Douglas-fir stands.

Yellow-rumped Warbler *Dendroica coronata* Present Common Breeder

Two easily distinguished subspecies of the species can be found in the park. One the Audubon's Warbler (*D. c. auduboni*) is the most common warbler seen in the park. It can be found much of the year in conifer types. It has been seen defending territory and nesting is highly probable.

The Myrtle's Warbler (*D. c. coronata*) is much more rare in the region with only a few records from the 1960s to 1987.

Townsend's Warbler *Dendroica townsendi* Present Rare Migrant

This species is a sporadic migrant but was recorded 6 times in the Little Cottonwood Creek since 1993. This species is typically associated with mature coniferous forest and all records are from the spring or fall migration period.

American Redstart *Setophaga ruticilla* Present Occasional Unknown

This predominately riparian species is recorded in the Little Cottonwood Creek area every few years.

Northern Waterthrush *Seiurus noveboracensis* Probably Present

This species has not been observed in the park since 1988. The species is highly migratory and is known to regularly occur in the region. It is highly probable that the species still migrates through the park.

MacGillivray's Warbler *Oporornis tolmiei* Present Common Breeder

This species is a common inhabitant of the riparian strips. It has been recorded on the survey route in Little Cottonwood every year this survey has been performed and nesting has been verified.

Common Yellowthroat *Geothlypis trichas* Probably Present

This species is known to inhabit riparian and wetland areas throughout the region. It likely at least migrates through the park.

Wilson's Warbler *Wilsonia pusilla* Present Uncommon Breeder

This species is frequently seen during spring migration with occasional records during the breeding season. Adults feeding recently fledged young were verified in the area near the visitor center in 1995.

Yellow-breasted Chat *Icteria virens* Probably Present

This species is known to inhabit many riparian areas throughout southern Idaho. It likely at least migrates through the park.

Western Tanager *Piranga ludoviciana* Present Uncommon Breeder

This species is common in limber pine and Douglas-fir stands during the spring migration. It is seen less frequently during the breeding season and a few nest records have been documented.

Green-tailed Towhee *Pipilo chlorurus* Present Uncommon Breeder

This species is recorded several times a year in shrubsteppe areas. Nesting has been verified.

Spotted Towhee *Pipilo maculatus* Present Abundant Breeder

This is the second most common species detected on the bird surveys. Nesting has been documented.

American Tree Sparrow *Spizella arborea* Probably Present

This species regularly winters in Butte County and it likely winters in the park on an irregular basis.

Chipping Sparrow *Spizella passerina* Present Common Breeder

This is common nesting species in limber pine and other forest types.

Brewer's Sparrow *Spizella breweri* Present Abundant Breeder

This is the single most common bird on the monument bird survey. It can be found in varying number in most shrubsteppe types. It reaches it greatest numbers in mature sagebrush. This species accounts for 1/3 or more of the total individuals recorded during surveys.

Vesper Sparrow *Pooecetes gramineus* Present Uncommon Unknown

This species can be found in much of the park. Numbers can vary widely and it can range from rare to common in a given year.

Lark Sparrow *Chondestes grammacus* Present Uncommon Unknown

This species can also vary from year to year but at least a few are seen every year. It can be seen throughout the shrubsteppe areas of the park. Nests have not yet been found but it is highly probable that it nests in the park.

Black-throated Sparrow *Amphispiza bilineata* Present Rare Unknown

This species had not been verified since 1987. Researchers from Boise State University found a singing male in the Preserve during June of 2004.

Sage Sparrow *Amphispiza belli* Present Uncommon Unknown

Several records are compiled every year. Nests have not been found but the species almost certainly nests in the sagebrush areas.

Lark Bunting *Calamospiza melanocorys* Present Occasional Unknown

Several large groups have been found in the BLM portion of the monument indicate the species at least migrates through the Preserve. This species was first documented on NPS lands in June of 2004 on the Kings Bowl Lava Field.

Savannah Sparrow *Passerculus sandwichensis* Present Rare Unknown

This species is recorded only a few times a year but it is found most years. It likely they nest in the park, although nests have not yet been found.

Grasshopper Sparrow *Ammodramus savannarum* Present Occasional Unknown

This species has not yet been documented on NPS lands but the species was documented nesting in the BLM portion of the monument as recently as 2002 indicate the species at least migrates through the Preserve. In June of 2004 two birds were seen in the BLM monument near Point Well approximately 400 yards from the Preserve.

Fox Sparrow *Passerella iliaca* Present Uncommon Breeder

This species is found in the Little Cottonwood Creek riparian during the breeding season. During migration it has been recorded in limber pine.

Song Sparrow *Melospiza melodia* Present Common B

This species is found in the riparian strips as well as along the edges of Lava Lake and the hot springs. During migration it is much more widespread in the park.

Lincoln's Sparrow *Melospiza lincolnii* Present Rare Unknown

This species is recorded once or twice a year in the northwest portion of the park.

Harris's Sparrow *Zonotrichia querula* Present Rare Migrant

This species was found in migration during October 2003. This was the first record for the park since 1987. It is known to migrate through the region and it is likely a more frequent migrant than a single record would suggest.

White-crowned Sparrow *Zonotrichia leucophrys* Present Common
Unknown

This species is common spring and fall migrant. Some breeding season records suggest it may also be a rare to uncommon breeder.

Dark-eyed Junco *Junco hyemalis* Present Common Breeder

Two easily distinguished subspecies of the species can be found in the park. One the Oregon Junco (J. h. *oregonis*) is a common nester. It can be found much of the year in conifer types.

The Slate-colored Junco (J. h. *hyemalis*) is more typical of the north-central Rocky Mountains. The Slate-colored Junco is known migrate through the area and is rare in the park.

Snow Bunting *Plectrophenax nivalis* Present Uncommon Migrant

This is an arctic species that winters in the park. A few flocks are seen most winters.

Black-headed Grosbeak *Pheucticus melanocephalus* Present Uncommon Unknown

Several are seen every year throughout the breeding season. Nesting has not been confirmed but is highly probable.

Lazuli Bunting *Passerina cyanea* Present Common Breeder

This species is seen regularly from June to September in the northwest portion of the park. Nesting has been verified.

Bobolink *Dolichonyx oryzivorus* Probably Present

This species is known to occur in grasslands on the BLM Shoshone Field Office. Unverified observations have been made in the monument. It likely infrequently occurs in the park as well.

Red-winged Blackbird *Agelaius phoeniceus* Present Uncommon Breeder

This species nests in the areas surrounding the hot springs and Lava Lake. It also is a regular migrant in the area around the visitor center.

Western Meadowlark *Sturnella neglecta* Present Common Breeder

This species is a common nester in many sagebrush areas within the park.

Yellow-headed Blackbird *Xanthocephalus xanthocephalus* Present Uncommon Breeder

This species is frequently encountered in the areas around Carey WMA, Lava Lake, and the hot springs. The species is frequently observed resting and foraging in these areas. Nesting has been documented in the Preserve adjacent to Lava Lake.

Brewer's Blackbird *Euphagus cyanocephalus* Present Common Breeder

This species is frequently seen in many areas of the park. It is a regular nester in the area around the visitor center.

Common Grackle *Quiscalus quiscula* Present Occasional Migrant

This species is near the edge of its range and is seen only infrequently in the area around the park. It was verified near the visitor center in June of 1994.

Brown-headed Cowbird *Molothrus ater* Present Common Breeder

This species numbers can vary from year to year but at least several birds are seen every summer. Nesting has been observed in the Leech Creek riparian zone and likely breeds elsewhere where the species is observed.

Bullock's Oriole *Icterus bullockii* Present Uncommon Unknown

Numbers of this species can be vary substantially from year to year but at least a few are recorded most years. A few are seen most years during the breeding season and it is likely that a few nest most years.

Gray-crowned Rosy-Finch *Leucosticte tephrocotis* Present Uncommon Migrant

This species is a regular wintering species. Several flocks can be seen from late October to February most years. Flocks exceeding 1500 have been recorded in the preserve.

Black Rosy-Finch *Leucosticte atrata* Present Rare Migrant

This species is a rare winter migrant. It may be in pure flocks or mixed with Gray-crowned. Flocks and are seen every couple of years.

Cassin's Finch *Carpodacus cassinii* Present Abundant Breeder

This is the abundant species in most limber pine areas. It can be found in substantial numbers from March to November most years. It is a common nester in the Douglas-fir stands.

House Finch *Carpodacus mexicanus* Present Uncommon Unknown

This species is regularly seen in summer and fall. Most individuals are probably migrants but some may nest.

Red Crossbill *Loxia curvirostra* Present Rare Unknown

This species is observed once or twice a year. It may nest in the Douglas-fir areas but most individuals are probably migrants.

Common Redpoll *Carduelis flammea* Present Rare Migrant

This is a boreal species with a few being recorded in the park most winters. In a few years substantial flocks have been documented wintering in the visitor center area.

Pine Siskin *Carduelis pinus* Present Common Breeder

This species is common nester in both limber pine and Douglas-fir. Some individuals are migratory while others are permanent residents in the park.

Lesser Goldfinch *Carduelis psaltria* Probably Present

This species has not yet been verified in the park. It is a regular migrant to the region and numerous records from Massacre Rocks State Park have been verified.

American Goldfinch *Carduelis tristis* Present Uncommon Unknown

This species is seen during spring migration most years. A few breeding season records occur and it may nest in the Douglas-fir stands.

Evening Grosbeak *Coccothraustes vespertinus* Present Rare Migrant

This a species associated with coniferous forest. Several records exist for the migration period.

House Sparrow *Passer domesticus*

Present Common Breeder

This exotic species has been documented in the park for several years and has been a regular nester since 1997.

VI. Literature Cited

American Ornithologist's Union. 2003. Checklist of North American birds, 7th ed.
American Ornithologist's Union <http://www.aou.org/aou/birdlist.html>

Hoffman. R. A. 1988. Craters of the moon national monument baseline inventory and monitoring. U. of Idaho Coop. Park Studies, Report B88-4.

Table I. Current status of all bird species likely to occur at Craters of the Moon.

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Greater White-fronted Goose	<i>Anser albifrons</i>	V	No
Snow Goose	<i>Chen caerulescens</i>	M	Yes
Ross' Goose	<i>Chen rossii</i>	V	No
Canada Goose	<i>Branta canadensis</i>	MN	Yes
Trumpeter Swan	<i>Cygnus buccinator</i>	V	No
Tundra Swan	<i>Cygnus columbianus</i>	M	Yes
Wood Duck	<i>Aix sponsa</i>	V	No
Gadwall	<i>Anas strepera</i>	MN	Yes
Eurasian Wigeon	<i>Anas penelope</i>	V	No
American Wigeon	<i>Anas americana</i>	M	Yes
Mallard	<i>Anas platyrhynchos</i>	MN	Yes
Blue-winged Teal	<i>Anas discors</i>	M	Yes
Cinnamon Teal	<i>Anas cyanoptera</i>	MN	Yes
Northern Shoveler	<i>Anas clypeata</i>	MN	Yes
Northern Pintail	<i>Anas acuta</i>	M	Yes
Green-winged Teal	<i>Anas crecca</i>	M	Yes
Canvasback	<i>Aythya valisineria</i>	M	Yes
Redhead	<i>Aythya americana</i>	M	Yes
Ring-necked Duck	<i>Aythya collaris</i>	M	Yes
Greater Scaup	<i>Aythya marila</i>	V	No
Lesser Scaup	<i>Aythya affinis</i>	M	Yes
Bufflehead	<i>Bucephala albeola</i>	M	Yes
Common Goldeneye	<i>Bucephala clangula</i>	M	Yes
Barrow's Goldeneye	<i>Bucephala islandica</i>	V	No
Hooded Merganser	<i>Lophodytes cucullatus</i>	V	No
Common Merganser	<i>Mergus merganser</i>	V	No

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Red-breasted Merganser	<i>Mergus serrator</i>	V	No
Ruddy Duck	<i>Oxyura jamaicensis</i>	MN	Yes
Chukar	<i>Alectoris chukar</i>	RN	Yes
Gray Partridge	<i>Perdix perdix</i>	RN	Yes
Ring-necked Pheasant	<i>Phasianus colchicus</i>	RN	Yes
Ruffed Grouse	<i>Bonasa umbellus</i>	RN	Yes
Greater Sage-grouse	<i>Centrocercus urophasianus</i>	RN	Yes
Blue Grouse	<i>Dendragapus obscurus</i>	RN	Yes
Sharp-tailed Grouse	<i>Tympanuchus phasianellus columbianus</i>	RN	No
Wild Turkey	<i>Meleagris gallopavo</i>	V	No
California Quail	<i>Callipepla californica</i>	V	No
Common Loon	<i>Gavia immer</i>	V	No
Pied-billed Grebe	<i>Podilymbus podiceps</i>	M	Yes
Horned Grebe	<i>Podiceps auritus</i>	V	No
Eared Grebe	<i>Podiceps nigricollis</i>	M	Yes
Western Grebe	<i>Aechmophorus occidentalis</i>	V	No
American White Pelican	<i>Pelecanus erythrorhynchos</i>	V	No
Double-crested Cormorant	<i>Phalacrocorax auritus</i>	M	Yes
American Bittern	<i>Botaurus lentiginosus</i>	V	No
Great blue Heron	<i>Ardea herodias</i>	M	Yes
Great Egret	<i>Ardea alba</i>	V	No
Snowy Egret	<i>Egretta thula</i>	V	No
Cattle Egret	<i>Bubulcus ibis</i>	V	No
Green Heron	<i>Butorides virescens</i>	V	No
Black-crowned Night-heron	<i>Nycticorax nycticorax</i>	V	No
White-faced Ibis	<i>Plegadis chihi</i>	M	Yes
Turkey Vulture	<i>Cathartes aura</i>	MN	Yes
Osprey	<i>Pandion haliaetus</i>	M	Yes
Bald Eagle	<i>Haliaeetus leucocephalus</i>	W	Yes
Northern Harrier	<i>Circus cyaneus</i>	MN	Yes
Sharp-shinned Hawk	<i>Accipiter striatus</i>	MN	Yes
Cooper's Hawk	<i>Accipiter cooperii</i>	MN	Yes
Northern Goshawk	<i>Accipiter gentilis</i>	M	Yes
Swainson's Hawk	<i>Buteo swainsoni</i>	MN	Yes
Ferruginous Hawk	<i>Buteo regalis</i>	MN	Yes
Rough-legged Hawk	<i>Buteo lagopus</i>	W	Yes
Red-tailed Hawk	<i>Buteo jamaicensis</i>	RN	Yes
Golden Eagle	<i>Aquila chrysaetos</i>	RN	Yes
American Kestrel	<i>Falco sparverius</i>	RN	Yes
Merlin	<i>Falco columbarius</i>	M	Yes
Gyr Falcon	<i>Falco rusticolus</i>	W	No
Peregrine Falcon	<i>Falco peregrinus</i>	M	Yes
Prairie Falcon	<i>Falco mexicanus</i>	MN	Yes
Virginia Rail	<i>Rallus limicola</i>	MN	Yes
Sora	<i>Porzana carolina</i>	MN	Yes
American Coot	<i>Fulica americana</i>	MN	Yes
Sandhill Crane	<i>Grus canadensis</i>	MN	Yes
Black-bellied Plover	<i>Pluvialis squatarola</i>	V	No

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Snowy Plover	<i>Charadrius alexandrinus</i>	V	No
Semipalmated Plover	<i>Charadrius semipalmatus</i>	V	No
Killdeer	<i>Charadrius vociferus</i>	M	Yes
Mountain Plover	<i>Charadrius montanus</i>	V	No
Black-necked Stilt	<i>Himantopus himantopus</i>	V	No
American Avocet	<i>Recurvirostra americana</i>	M	Yes
Greater Yellowlegs	<i>Tringa melanoleuca</i>	M	Yes
Lesser Yellowlegs	<i>Tringa flavipes</i>	V	No
Solitary Sandpiper	<i>Tringa solitaria</i>	V	No
Willet	<i>Catoptrophorus semipalmatus</i>	M	Yes
Spotted Sandpiper	<i>Actitis macularia</i>	M	Yes
Long-billed Curlew	<i>Numenius americanus</i>	MN	Yes
Marbled Godwit	<i>Limosa fedoa</i>	V	No
Sanderling	<i>Calidris alba</i>	V	No
Semipalmated Sandpiper	<i>Calidris pusilla</i>	V	No
Western Sandpiper	<i>Calidris mauri</i>	V	No
Least Sandpiper	<i>Calidris minuta</i>	V	No
Baird's Sandpiper	<i>Calidris bairdii</i>	V	No
Pectoral Sandpiper	<i>Calidris melanotos</i>	V	No
Stilt Sandpiper	<i>Calidris himantopus</i>	V	No
Long-billed Dowitcher	<i>Limnodromus scolopaceus</i>	M	Yes
Wilson's Snipe	<i>Gallinago delicata</i>	MN	Yes
Wilson's Phalarope	<i>Phalaropus tricolor</i>	M	Yes
Red-necked Phalarope	<i>Phalaropus lobatus</i>	V	No
Franklin's Gull	<i>Larus pipixcan</i>	M	Yes
Bonaparte's Gull	<i>Larus philadelphia</i>	V	No
Ring-billed Gull	<i>Larus delawarensis</i>	M	Yes
California Gull	<i>Larus californicus</i>	M	Yes
Herring Gull	<i>Larus argentatus</i>	V	No
Caspian Tern	<i>Sterna caspia</i>	M	No
Common Tern	<i>Sterna hirundo</i>	V	No
Forster's Tern	<i>Sterna forsteri</i>	M	No
Black Tern	<i>Chlidonias niger</i>	V	No
Rock Dove	<i>Columba livia</i>	RN	Yes
Band-tailed Pigeon	<i>Columba fasciata</i>	V	No
Mourning Dove	<i>Zenaida macroura</i>	MN	Yes
Yellow-billed Cuckoo	<i>Coccyzus americanus</i>	V	No
Barn Owl	<i>Tyto alba</i>	M	No
Western Screech-owl	<i>Megascops kennicottii</i>	RN	No
Snowy Owl	<i>Bubo scandiaca</i>	W	Yes
Great Horned Owl	<i>Bubo virginianus</i>	RN	Yes
Northern Pygmy-owl	<i>Glaucidium gnoma</i>	M	No
Burrowing Owl	<i>Athene cunicularia</i>	MN	Yes
Long-eared Owl	<i>Asio otus</i>	RN	Yes
Short-eared owl	<i>Asio flammeus</i>	MN	Yes
Northern Saw-whet Owl	<i>Aegolius acadicus</i>	RN	Yes
Common Nighthawk	<i>Chordeiles minor</i>	MN	Yes
Common Poorwill	<i>Phalaenoptilus nuttallii</i>	MN	Yes
White-throated Swift	<i>Aeronautes saxatalis</i>	MN	Yes
Black-chinned	<i>Archilochus alexandri</i>	MN	Yes

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Hummingbird			
Calliope Hummingbird	<i>Stellula calliope</i>	MN	Yes
Broad-tailed Hummingbird	<i>Selasphorus platycercus</i>	MN	Yes
Rufous Hummingbird	<i>Selasphorus rufus</i>	MN	Yes
Belted Kingfisher	<i>Ceryle alcyon</i>	M	No
Lewis' Woodpecker	<i>Melanerpes lewis</i>	MN	Yes
Red-headed Woodpecker	<i>Melanerpes erythrocephalus</i>	V	No
Williamson's Sapsucker	<i>Sphyrapicus thyroideus</i>	M	Yes
Red-naped Sapsucker	<i>Sphyrapicus nuchalis</i>	MN	Yes
Downy Woodpecker	<i>Picoides pubescens</i>	RN	Yes
Hairy Woodpecker	<i>Picoides villosus</i>	RN	Yes
Pileated Woodpecker	<i>Dryocopus pileatus</i>	V	No
Northern Flicker	<i>Colaptes auratus</i>	RN	Yes
Olive-sided Flycatcher	<i>Contopus cooperi</i>	MN	Yes
Western Wood-pewee	<i>Contopus sordidulus</i>	MN	Yes
Willow Flycatcher	<i>Empidonax traillii</i>	M	Yes
Hammond's Flycatcher	<i>Empidonax hammondii</i>	M	Yes
Gray Flycatcher	<i>Empidonax wrightii</i>	MN	Yes
Dusky Flycatcher	<i>Empidonax oberholseri</i>	MN	Yes
Cordilleran Flycatcher	<i>Empidonax occidentalis</i>	MN	Yes
Say's Phoebe	<i>Sayornis saya</i>	MN	Yes
Ash-throated Flycatcher	<i>Myiarchus cinerascens</i>	V	No
Western Kingbird	<i>Tyrannus verticalis</i>	MN	Yes
Eastern Kingbird	<i>Tyrannus tyrannus</i>	MN	Yes
Loggerhead Shrike	<i>Lanius ludovicianus</i>	MN	Yes
Northern Shrike	<i>Lanius excubitor</i>	W	Yes
Plumbeous Vireo	<i>Vireo plumbeus</i>	MN	Yes
Cassin's Vireo	<i>Vireo cassinii</i>	MN	Yes
Warbling Vireo	<i>Vireo gilvus</i>	MN	Yes
Red-eyed Vireo	<i>Vireo olivaceus</i>	MN	No
Steller's Jay	<i>Cyanocitta stelleri</i>	M	Yes
Western Scrub Jay	<i>Aphelocoma californica</i>	RN	No
Pinyon Jay	<i>Gymnorhinus cyanocephalus</i>	RN	Yes
Clark's Nutcracker	<i>Nucifraga columbiana</i>	RN	Yes
Black-billed Magpie	<i>Pica hudsonia</i>	RN	Yes
American Crow	<i>Corvus brachyrhynchos</i>	RN	Yes
Common Raven	<i>Corvus corax</i>	RN	Yes
Horned Lark	<i>Eremophila alpestris</i>	RN	Yes
Purple Martin	<i>Progne subis</i>	V	No
Tree Swallow	<i>Tachycineta bicolor</i>	MN	Yes
Violet-green Swallow	<i>Tachycineta thalassina</i>	MN	Yes
Northern rough-winged Swallow	<i>Stelgidopteryx serripennis</i>	MN	Yes
Bank Swallow	<i>Riparia riparia</i>	MN	Yes
Cliff Swallow	<i>Petrochelidon pyrrhonota</i>	MN	No
Barn Swallow	<i>Hirundo rustica</i>	MN	Yes
Black-capped Chickadee	<i>Poecile atricapillus</i>	RN	Yes
Mountain Chickadee	<i>Poecile gambeli</i>	RN	Yes
Juniper Titmouse	<i>Baeolophus inornatus</i>	RN	No
Bushtit	<i>Psaltriparus minimus</i>	RN	No

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Red-breasted Nuthatch	<i>Sitta canadensis</i>	RN	Yes
White-breasted Nuthatch	<i>Sitta carolinensis</i>	RN	Yes
Pygmy Nuthatch	<i>Sitta pygmaea</i>	V	No
Brown Creeper	<i>Certhia americana</i>	W	Yes
Rock Wren	<i>Salpinctes obsoletus</i>	MN	Yes
Canyon Wren	<i>Catherpes mexicanus</i>	M	Yes
House Wren	<i>Troglodytes aedon</i>	MN	Yes
Winter Wren	<i>Troglodytes troglodytes</i>	RN	Yes
Marsh Wren	<i>Cistothorus palustris</i>	MN	Yes
American Dipper	<i>Cinclus mexicanus</i>	V	No
Golden-crowned Kinglet	<i>Regulus satrapa</i>	MN	Yes
Ruby-crowned Kinglet	<i>Regulus calendula</i>	RN	Yes
Blue-gray Gnatcatcher	<i>Polioptila caerulea</i>	MN	Yes
Western Bluebird	<i>Sialia mexicanus</i>	V	No
Mountain Bluebird	<i>Sialia currucoides</i>	MN	Yes
Townsend's Solitaire	<i>Myadestes townsendi</i>	MN	Yes
Veery	<i>Catharus fuscescens</i>	V	No
Swainson's Thrush	<i>Catharus ustulatus</i>	MN	Yes
Hermit Thrush	<i>Catharus guttatus</i>	MN	Yes
American Robin	<i>Turdus migratorius</i>	MN	Yes
Varied Thrush	<i>Ixoreus naevius</i>	M	Yes
Gray Catbird	<i>Dumetella carolinensis</i>	MN	Yes
Northern Mockingbird	<i>Mimus polyglottus</i>	V	Yes
Sage Thrasher	<i>Oreoscoptes montanus</i>	MN	Yes
Brown Thrasher	<i>Toxostoma rufum</i>	V	Yes
European Starling	<i>Sturnus vulgaris</i>	RN	Yes
American Pipit	<i>Anthus rubescens</i>	M	No
Bohemian Waxwing	<i>Bombycilla garrulus</i>	W	Yes
Cedar Waxwing	<i>Bombycilla cedrorum</i>	M	Yes
Tennessee Warbler	<i>Vermivora peregrina</i>	V	No
Orange-crowned Warbler	<i>Vermivora celata</i>	MN	Yes
Nashville Warbler	<i>Vermivora ruficapilla</i>	M	Yes
Virginia's Warbler	<i>Vermivora virginiae</i>	V	No
Yellow Warbler	<i>Dendroica petechia</i>	MN	Yes
Yellow-rumped Warbler	<i>Dendroica coronata</i>	MN	Yes
Black-throated Gray Warbler	<i>Dendroica nigrescens</i>	V	No
Townsend's Warbler	<i>Dendroica townsendii</i>	M	Yes
Black-and -white Warbler	<i>Mniotilta varia</i>	V	No
American Redstart	<i>Setophaga ruticilla</i>	M	Yes
Northern Waterthrush	<i>Seiurus noveboracensis</i>	M	No
Macgillivray's Warbler	<i>Oporornis tolmiei</i>	MN	Yes
Common Yellowthroat	<i>Geothlypis trichas</i>	MN	No
Wilson's Warbler	<i>Wilsonia pusilla</i>	MN	Yes
Yellow-breasted Chat	<i>Icteria virens</i>	MN	No
Western Tanager	<i>Piranga ludoviciana</i>	MN	Yes
Green-tailed Towhee	<i>Pipilo chlorurus</i>	MN	Yes
Spotted Towhee	<i>Pipilo maculatus</i>	MN	Yes
American Tree Sparrow	<i>Spizella arborea</i>	W	No
Chipping Sparrow	<i>Spizella passerina</i>	MN	Yes
Brewer's Sparrow	<i>Spizella breweri</i>	MN	Yes

Common Name	Scientific Name	Probable Status ⁱ	Confirm since 1990
Vesper Sparrow	<i>Poocetes gramineus</i>	MN	Yes
Lark Sparrow	<i>Chondestes grammacus</i>	MN	Yes
Black-throated Sparrow	<i>Amphispiza bilineata</i>	MN	Yes
Sage Sparrow	<i>Amphispiza belli</i>	MN	Yes
Lark Bunting	<i>Calamospiza melanocorys</i>	MN	Yes
Savannah Sparrow	<i>Passerculus sandwichensis</i>	MN	Yes
Grasshopper Sparrow	<i>Ammodramus savannarum</i>	MN	Yes
Fox Sparrow	<i>Passerella iliaca</i>	MN	Yes
Song Sparrow	<i>Melospiza melodia</i>	MN	Yes
Lincoln's Sparrow	<i>Melospiza lincolni</i>	MN	Yes
White-throated Sparrow	<i>Zonotrichia albicollis</i>	V	No
White-crowned Sparrow	<i>Zonotrichia leucophrys</i>	MN	Yes
Golden-crowned Sparrow	<i>Zonotrichia atricapilla</i>	V	No
Harris Sparrow	<i>Zonotrichia querula</i>	M	Yes
Dark-eyed (Oregon) Junco	<i>Junco hyemalis</i>	MN	Yes
Dark-eyed (Slate-colored) Junco	<i>Junco hyemalis</i>	M	No
McCown's Longspur	<i>Calcarius mccownii</i>	V	No
Lapland Longspur	<i>Calcarius lapponica</i>	V	No
Snow Bunting	<i>Plectrophenax nivalis</i>	W	Yes
Black-headed Grosbeak	<i>Pheucticus melanocephalus</i>	MN	Yes
Rose-breasted Grosbeak	<i>Pheucticus ludovicianus</i>	V	No
Blue Grosbeak	<i>Guiraca caerulea</i>	V	No
Lazuli Bunting	<i>Passerina amoena</i>	MN	Yes
Bobolink	<i>Dolichonyx oryzivorus</i>	MN	No
Red-winged Blackbird	<i>Agelaius phoeniceus</i>	MN	Yes
Western Meadowlark	<i>Sturnella neglecta</i>	MN	Yes
Yellow-headed Blackbird	<i>Xanthocephalus xanthocephalus</i>	MN	Yes
Brewer's Blackbird	<i>Euphagus cyanocephalus</i>	MN	Yes
Common Grackle	<i>Quiscalus quiscula</i>	V	Yes
Brown-headed Cowbird	<i>Molothrus ater</i>	MN	Yes
Baltimore Oriole	<i>Icterus galbula</i>	V	No
Bullock's Oriole	<i>Icterus bullockii</i>	MN	Yes
Gray-crowned Rosy-finch	<i>Leucosticte tephrocotis</i>	W	Yes
Black Rosy-finch	<i>Leucosticte atrata</i>	W	Yes
Pine Grosbeak	<i>Pinicola enucleator</i>	V	No
Purple Finch	<i>Carpodacus purpureus</i>	V	No
Cassin's Finch	<i>Carpodacus cassinii</i>	MN	Yes
House Finch	<i>Carpodacus mexicanus</i>	MN	Yes
Red Crossbill	<i>Loxia curvirostra</i>	M	Yes
Common Redpoll	<i>Carduelis flammea</i>	W	Yes
Hoary Redpoll	<i>Carduelis hornemannii</i>	V	No
Pine Siskin	<i>Carduelis pinus</i>	RN	Yes
Lesser Goldfinch	<i>Carduelis psaltria</i>	RN	No
American goldfinch	<i>Carduelis tristis</i>	MN	Yes
Evening Grosbeak	<i>Coccothraustes vespertinus</i>	M	Yes
House Sparrow	<i>Passer domesticus</i>	RN	Yes

ⁱ Probable Status codes: RN = Resident Nester, M = migrant. MN = migrant nester, W = wintering, V = vagrant. For definitions see page 7

This report was prepared by Mike Munts.