C.F.O. Journal

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Cover Drawing. Broad-tailed Hummingbird by Joseph C. Rigli.
Joe lives in Fort Morgan, Colorado and his artwork has appeared in publications of Buteo Books and the Denver Field Ornithologists.

DISTRIBUTION AND NESTING REQUIREMENTS OF MONTANE FOREST OWLS IN COLORADO

Part I: Saw-whet Owl AEGOLIUS ACADICUS

BY Bruce Webb
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A historical summary of Saw-whet Owl distribution during the breeding season is presented in Figure 1.

Survey and nesting reports

I recorded eleven owls at nine localities in 1978, and five owls at four localities in 1979 (Table 1). In 1978 I located nests and monitored nest activites behavior at Castlewood Canyon, Douglas County, and 0.6 km south of Red Feathers Lakes, Larimer County. In both locations I observed adults calling and repeatedly entering the nest cavity. A check at Castlewood Canyon four weeks after discovery of the nest cavity disclosed that the dead ponderosa pine tree had fallen, presumably under the weight of snow from a 4-5 May heavy storm. I again located the adults, which I banded on 25 April 1978 in the area. A subsequent check of the nest cavity south of Red Feathers Lakes revealed that it had been abandoned. No Saw-whet Owls were seen or heard in the surrounding area in 1978 or 1979. Both sites are ponderosa pine-Douglas fir stands.

During the 1979 season, I found two active Saw-whet Owl nests. On 29 April I heard a male calling 6.4 km west of Red Feathers Lakes, Larimer County. Prior to dusk I tracked it to its diurnal perch when it gave 2-3 preflight dusk calls. The habitat was aspen lined creek bottom with surrounding lodgepole pines.

The pattern of spontaneous calls by this male was uninfluenced by me (i.e., no tape recorded playback of calls was used to elicit responses from the owl). The pattern of calls proceeded as follows: At 1849 hrs the owl called for approximately 2 minutes. At 2010 calls lasted 2 minutes, 2043 - 3 minutes, 2125 - 5 seconds, 2139 - 5 seconds. No more calls were given until 2215 when it began calling and called almost continuously until 2230. This uninfluenced sequence consisted, in part, of three initial sets of calls, 2-3 minutes in duration. My suspicion is that the quite long interval between the first and second calls (80 minutes) is the time during which the male is actively hunting for prey. Thereafter the male probably makes the short calls when approaching the female at the nest. It is possible that the male may be presenting a prey item to the female at such time. Much later when foraging is completed, the male has time to perch and give forth a prolonged sequence. I suspect that such a prolonged set is more of a territorial song to other males, than the preceding shorter duration male-female interactions. I banded both adults, but could not inspect the nest contents because the nest tree was decaying and unsafe to climb. At a later date I tape recorded vocal activity at the nest site.

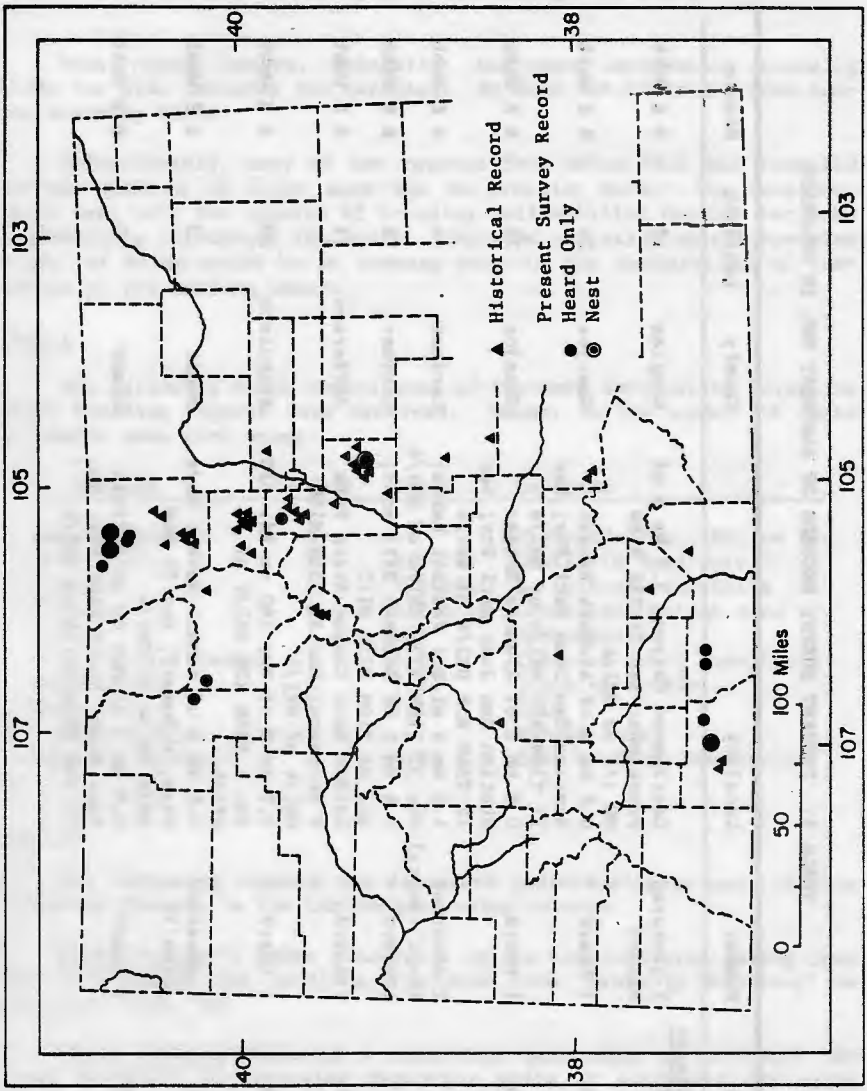

Figure 1. Historical and Present Survey Distributional Records of Saw-Whet Owl in Colorado

TABLE 1: PRESENT SURVEY RECORDS OF SAW-WHET OWL IN COLORADO

	Date	Number	Locality	County	Latilong	Source
	1978 Season					
1.	Apr 25	2 captured banded	Castlewood Canyon, 3.2 km S of Franktown; Sec 22 T85 R66W NW 1/4 of NE1/4	Douglas	12	B E Webb
2.	Apr 26	1 heard	0.8 km W of Alamosa Ranger Station San Juan Natl For; Sec 11 T36N R5E NE1/4 of NW1/4	Conejos	24	B E Webb
3.	Apr 26	1 heard	0.8 km E of Alamosa Ranger Station San Juan Natl For; Sec 12 T36N R5E SE1/4 of NW1/4	Conejos	24	B E Webb
4.	May 6	2 observed (nest cavity)	1.6 km S of Red Feather Lakes; Sec 32 T10N R73W SW1/4 of NW1/4	Larimer	4	B E Webb
5.	Jun 9	1 heard	1.6 km S of Deadman Hill Road; Sec 32 T10N R75W N1/2	Larimer	4	B E Webb
6.	Jun 13	1 heard	Golden Gate Canyon State Park S Entrance; Sec 29 T35N R10W NE1/4 of NE1/4	Jefferson	11	B E Webb
7.	Jun 28	1 heard	3.2 km N of Hwy 160 on Rd. 630; Sec 8 T34N R2W SE1/4 of SE1/4	Archuleta	23	B E Webb
8.	Jul 21	1 observed juvenile	0.8 km S of summit Rabbit Ears Pass, W Summit; Sec 20 T4N R82W NW1/4 of NW1/4	Routt	3	B E Webb
9.	Jul 22	1 heard	4.8 km S of Hwy 40 on Buffalo Pass Road, Routt Natl For; Sec 32 T4N R82W SW1/4 of SE1/4	Grand	3	B E Webb

PRESENT SURVEY RECORDS OF SAW-WHET OWL IN COLORADO

Date	Number	Locality	County	Latilong	Source
1979 Season					
10. Apr 29-30	2 observed (nest cavity) f band # 614-09361	6.5 km W of Red Feather Lakes; Sec 26 T10N R74 SW1/4 of NW1/4	Larimer	4	B E Webb
11. Apr 30	1 heard	1.6 km S of Red Feather Lakes; Sec 7 T9N R73W NE1/4 of NW1/4	Larimer	4	B E Webb
12. May 1	1 heard	6.5 km S of Red Feather Lakes; Sec 8 T9N R73W SW1/4 of SW1/4	Larimer	4	B E Webb
13. Jun 18	1 female band #614-09362	6.5 km NE of Pagosa Springs; Sec 27 T35N R1E SW1/4 of NE1/4	Archuleta	24	E Lujan, B E Webb

The second nest which I found was a result of my followup of a Saw-whet Owl report from Emilio Lujan, District Ranger of the Pagosa District U.S. Forest Service. Earlier in May 1979, Jim Shepardson and others, while laying out a proposed timber cut of a ponderosa pine-Douglas fir stand, found a Saw-whet Owl roosting in a low Douglas fir, 6.4 km east of Pagosa Springs, Archuleta County. On 18 June 1979, Jim Shepardson led me to the roost tree. No owl was present but several pellets had accumulated under the tree. By tapping suitable nest trees in the vicinity of the roost tree, I found a female owl in a dead, barkless ponderosa pine 27 m downslope from the roost tree. I banded the female and inspected the nest cavity which contained five eggs. Although my continued searching did not reveal the male owl, I located eleven regurgitated pellets under two nearby roost trees. My check of the nest cavity on 22 July revealed an empty nest. Daytime and evening surveys of the area did not produce any owls.

Richard P. Cooke, District Ranger of the Norwood District U.S. Forest Service, reported two separate pairs of Saw-whet Owls in McKee, south of Norwood, San Miguel County, on 3 and 6 July 1979. The report was received by me on 24 July 1979 and not followed up.

Discussion

The elevational range of sightings from this study extended from the Gambel oak ponderosa pine ecotone at Castlewood Canyon, elevation 1932 m (6340 ft) near Franktown, Douglas County to spruce-fir forest elevation 3109 m (10,200 ft) near Deadman Lookout Road, Larimer County. Such a wide differential in elevation (1177 m or 3860 ft) places this species in greatest potential overlap with other montane owls. Further community oriented studies should address the question of competition for nest sites and prey particularly between Saw-whet and Boreal Owls.

Of the five owl species investigated, Saw-whet Owls responded most readily to tape recorded elicitations and were heard calling spontaneously more often than other species. This and the wide elevation differential leads to my speculation that the Saw-whet Owl potentially is the most widespread and abundant small owl in the mountainous regions of Colorado.

One difficulty in determining intersexual and interspecific differences in prey selection is that regurgitated pellets are not found below the nest tree. I observed the female at the nest 6.4 km W of Red Feathers Lakes to leave the nest tree and cast a pellet at a tree 10 m distant. No other older pellets were present near the freshly cast one. I suspect that pellets from nest attending females may be unevenly dispersed in their territory. However, several small concentrations of pellets from two males at two sites were found under apparently favored roost trees.

Protocol for locating Saw-whet Owl nests

The technique described below is based on the consistent behavior

of two pairs of Saw-whet Owls whose nests I discovered in the course of this study.

A. At dusk, shortly before the beginning of owl feeding activity, and again at dawn when an owl has returned to its diurnal roost, a male Saw-whet Owl frequently calls a few times while perched in its roost tree.

B. In steep terrain a male owl generally will choose a roost site higher in elevation than the nest site (Forsman 1976 observed this with Spotted Owls). For energetic reasons it would be easier to glide directly to the nest tree than to reach it from downslope by labored flight.

C. After giving the pre-flight calls at dusk, the male flies to the nest tree and approaches the female. Depending on the stage of nesting, the male either enters the nest cavity (early stage) or perches near the hole (eggs or nestlings present). The flight call given by the male when approaching the female is a very rapid staccato burst of call notes. At the male's approach the female repeatedly gives soft "swee" rising inflection call notes. If these relatively quiet calls are heard, the female and nest cavity are very close. The male's approach may be repeated several times in succession, eliciting the notes. When the two birds are closest, the staccato series of call notes reaches a crescendo of a chattering series of "chuck"-like notes. In 1979, these calls were tape recorded and provided to the Colorado Division of Wildlife.

D. In the early stages of the nesting sequence the female probably moves considerable distances from the nest. When eggs or young are present she stays closer to the nest. Knowledge of these behavioral attributes and familiarity with the calls can enhance the possibility of finding the nest cavity. Not playing pre-recorded calls to attract the owls will allow their normal behavior patterns to ensue.

1. When Saw-whet Owl territory is known, for example, by hearing an owl during nocturnal surveying, it can be assumed that the nest tree is within the small area encompassed by the movements of the territorial, calling owl.

2. If a diurnal roost tree is discovered by localizing the dusk pre-flight calls, the observer must be ready to move quickly to the next position where the male flies. If the male-female interaction calls are heard, that location should be marked for daylight investigation as it is probably very close to the nest tree.

Acknowledgement

This project was funded by the U.S. Fish and Wildlife Service's Federal Aid-in-Wildlife-Restoration Program and was administered through the Colorado Division of Wildlife Raptor Investigations Project W-124-R. The support provided by these agencies was greatly appreciated.

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SAW-WHET OWL. Sketch by Tim Manolis of Boulder

THE BOTTERI'S SPARROW IN SOUTHEASTERN ARIZONA

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Southeastern Arizona includes a mixture of vegetation extending south from the Rocky Mountains at high elevations and north from the Sierra Madre Occidental at low elevations. The desert also reaches north from Mexico to converge here (Davis and Russell 1980). Consequently, the 200-mile radius around Tucson is rich in colorful birdlife and birdwatchers. However, the Botteri's Sparrow is nondescript, elusive, restricted geographically, and difficult to identify except by song. In The Birds of Arizona (Phillips et al. 1978), Allan Phillips writes that it is "plain as a mud fence, with no conspicuous pattern anywhere...it seems an ordinary sparrow...(and its song) is not what you would call music." It lives in seven-foot tall grasses inhabited by Western Diamondbacks and Collared Peccaries in an area subject to flooding and 100°F temperatures. No wonder that it has never been studied in any great depth! Naturally this species seemed to me the perfect object of a basic natural history study. While its breeding habitat has been largely destroyed, several large sections remain undisturbed and protected for study at the National Audubon Society's Appleton-Whittell Research Ranch near Elgin, Arizona.

The Botteri's Sparrow is primarily a Mexican species, reaching its northernmost distribution in Arizona and Texas. There are eight known subspecies, only two of which inhabit the United States. The Arizona subspecies of Botteri's Sparrow (Aimophila botterii arizonae) breeds in sacaton grasslands of southeastern Arizona and possibly in adjacent southwestern New Mexico and northern Chihuahua, Mexico. It is estimated that Sacaton (Sporobolus wrightii) covered 20 percent of southeastern Arizona prior to the late 1800s, growing in dense stands along narrow corridors of the Santa Cruz and San Pedro rivers. It also filled broad, flat floodplains at the base of mountain drainages, diffusing heavy runoff during the monsoon season and preventing flood channelization. In the Tucson Basin, the Santa Cruz river once opened into an extensive sacaton bottomland. Only remnants of this habitat remain due to severe agricultural pressures, particularly grazing. Although sacaton today is restricted to a few healthy stands, the Botteri's Sparrow breeds abundantly within them and seems to manage quite well in moderately disturbed patchy stands also. At the Research Ranch, sacaton stands have been ungrazed and undisturbed for 13 years so that they form a dense, seven-foot cover over hundreds of acres.

Botteri's Sparrows arrive on their breeding grounds from central Mexico in late May. During June, they are paired and the males sing from both perches and in flight. Flight-songs occur when the male is extremely agitated. He flies in a low, slightly arced pathway using stiff, rapid wingbeats, and then hovers momentarily just before landing. Perch-songs and flight-songs are identical, both ending with the distinctive "bouncing-ball-coming-to-rest" phrase. At my study sites, singing perches are most often sacaton, sunflower stalks, desert wil-

low and mesquite scattered along drainages in the sacaton stands, and Emory and Arizona oaks bordering the stands. May and June are months of extremely dry, hot weather. While these months are often associated with the breeding cycle in birds elsewhere, many species of birds in southeastern Arizona intensify their breeding activities only after the first monsoon rains arrive at the end of June. The summer monsoon season occurs from July to September, bringing brief, localized thunderstorms. At this time, Botteri's Sparrows begin laying eggs. In the summer of 1981, I observed two nestlings which fledged as early as July 9 at the Research Ranch.

The nests are extremely difficult to locate. They are expertly camouflaged behind the curtain of "dried-growth overhang" around a mature sacaton clump. A slight depression in the ground is lined with soft grasses, and the nest tilts slightly to the outside. When adults fly to the nest carrying nesting material and then grasshoppers for the young, they land randomly in the vicinity and secretively walk through the grasses to it so that the nest search area is frustratingly large. Other bird species which nest in sacaton stands are the Common Yellowthroat and Blue Grosbeak. Grasshopper and Cassin's Sparrows maintain territories here, but I have not yet found their nests. Botteri's Sparrows maintain territories outside of sacaton bottoms at the Research Ranch, but only in adjacent ravines and on slopes which have at least one isolated clump of sacaton present.

It appears that nestlings fledge in a very short period. There is a precarious balance between nesting too early in 100°F temperatures, when there is little water and fewer insects, and nesting too late when torrential monsoon rains cumulatively saturate the soil so that flooding occurs. The Botteri's Sparrow seems to have overcome these hazards by nesting late at the start of the rains and fledging the young rapidly, well before they can fly but as soon as they are able to climb grass clumps. This rapid fledging would be advantageous not only in reducing drowning deaths but also in preventing nestling predation by snakes. I found from two to four young with each parental group. All young appeared to be fledged by mid-August, and departure to the wintering grounds was completed by early October.

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FIVE YEARS OF BIRD BANDING AND OBSERVATIONS AT WILDCAT GULCH

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For the past five years I have banded birds at our summer home on Wildcat Gulch near Powderhorn, Gunnison County, Colorado at 9000 feet altitude in a habitat of meadow-willow-sagebrush-aspen-assorted evergreen trees. Shrubs in the immediate vicinity are predominantly wild roses and sage. The meadow is mostly native grasses. The flight pattern of the birds in the morning and afternoons is from the hills down to the willows for water. During the day the birds nesting in the nearby sage come to the birdbath or willows for water and to the seeds spread along the road in front of the nets, or to the feeding tray that holds the traps. Nets and traps are operational three or four days a week, usually three hours mornings and occasionally late afternoons.

During the past five years, I have banded almost 4000 birds of 49 species. The number of returns has increased each year to a high of 123 in 1981 including ten birds originally banded as adults in 1977. These were four Gray-headed Juncos, four Green-tailed Towhees and two Vesper Sparrows all of them in at least their sixth year of life. The Juncos are the most numerous fall migrants with only a few nesting on the hill in the timber. The Vesper Sparrows and Green-tailed Towhees are prolific nesters on the ground and in the sage. My study has focused on the Green-tailed Towhee. In 1977 I banded 79, and in 1981 I banded 100. Their return rate has been consistently high. The fact that bandings of these species have increased each year would indicate that keeping the cattle out has provided a more secure nesting situation. The 120 acres around our cabin had for many years been heavily grazed both in spring and fall by ranchers using the surrounding Bureau of Land Management land, but by the fall of 1979 the cattle were completely fenced out. Since then I have noticed marked changes in the flora and fauna in the area: more birds, more species, and more and better natural food supply. This concentration of birds and small mammals has in turn led to an increase in the predator population. I have observed predation by weasels at a Mountain Bluebird nesting box, at a Robin's nest in the willows, and at the net. Hawks have patrolled the area and stooped near and through the nets, but have been unsuccessful at catching birds. Sharp-shinned, Cooper's, Red-tailed and Marsh Hawks, Peregrine Falcons and Kestrels have all been seen. On one occasion, a Golden Eagle followed a flight of a dozen Sage Grouse down the valley with no apparent attempt to overtake them.

In the immediate vicinity of our cabin, I have observed a total of 116 bird species either in migration or nesting. Birds that have nested include: Blue and Sage Grouse, Flammulated Owl, Common Nighthawk, Broad-tailed Hummingbird, Red-shafted Flicker, Yellow-bellied and Williamson's Sapsucker, Say's Phoebe, Hammond's and Dusky Flycatchers, Mountain Chickadee, House and Rock Wrens, Hermit Thrush,

Mountain Bluebird, Townsend's Solitaire, Ruby-crowned Kinglet, Warbling Vireo, Brewer's Blackbird, Western Tanager, Evening Grosbeak, Green-tailed Towhee, Vesper Sparrow, Gray-headed Junco, Chipping, Brewer's and Song Sparrows. In migration the most numerous have been Gray-headed and Oregon Juncos, Cassin's Finch and White-crowned Sparrows.

Of special interest has been the annual fall migration of the Sandhill Cranes from the Gray's Lake National Wildlife Refuge to the San Luis Valley. The route lies directly across our area. Each fall beginning in 1976, we have seen and heard young Whooping Cranes flying with the Sandhills. Young Whoopers are noticeably larger, lighter in color, fly somewhat apart from the group usually with only one or two Sandhills, and their raucous whoo-whoop can be heard above the clammering of the Sandhill flock.

CFO members are welcome to visit this area during the Annual Convention in Gunnison on 11-13 June 1982.

OBSERVATIONS OF 38 SMALL NEST BOXES IN NORTHCENTRAL COLORADO

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Save Our American Resources (SOAR) is a theme Boy Scout troops use once a year for a special natural resource related project. In January of 1979 I was asked by the Scout Master for Troop 95 to assist the troop in their 1979 SOAR project. At the weekly troop meetings we discussed possible projects, and the scouts chose to build nest boxes for mountain bluebirds and place them on the Ben Delatour Boy Scout Ranch. The goals of this project were to provide nest cavities for secondary cavity-nesting birds and an educational experience for the Boy Scouts.

Thirty-eight nest boxes were constructed and put up by the scouts. A few scouts and I monitored the boxes weekly to determine the acceptance of the boxes by mountain bluebirds and other species. Data were collected on the number of eggs laid and hatched and the number of birds fledged. Results were reported at the troop's weekly meeting with a brief discussion of their relationship to the lives of the nesting birds.

Study Area. Ben Delatour Boy Scout Ranch is 59 km northwest of Fort Collins, Larimer County, Colorado. The nest boxes are located approximately 2 km northeast of the ranch headquarters on Sections 8 and 17, T9N, R72W of the 6th P.M., on the Outpost Camp.

The climatic pattern for the area is continental in nature. Annual precipitation averages 47 cm and ranges from 28 cm to 61 cm (USDA Forest Service 1979, unpublished data, Red Feather weather station). Precipitation occurs primarily as snow from October to April (Leaf 1975). The topography is rolling foothills with granite outcrops, sandy loam soil and a south-southeast exposure.

The plant community is an open ponderosa pine (Pinus ponderosa) parkland with large meadows, aspen (Populus tremuloides) in low, moist areas and an occasional Douglas fir (Pseudotsuga menziesii) on north exposures. Understory shrubs are squaw currant (Ribes cereum), bitterbrush (Purshia tridentata), shrubby cinquefoil (Potentilla fruticosa), common juniper (Juniperus communis), kinnikinnik (Arctostaphylos uva-ursi) and willow (Salix sp.) in the drainages. Forbs present are yarrow (Achillea lanulosa), rose pussytoes (Antennaria rosea), fringed sage (Artemesia frigida), geranium (Geranium sp.), lupine (Lupinus sp.), herbaceous cinquefoil (Potentilla sp.), yellow stonecrop (Sedum stenopetalum), golden banner (Thermopsis divaricarpa), and Rocky Mountain iris (Iris missouriensis). Representative grasses are western wheatgrass (Agropyron smithii), Parry oatgrass (Danthonia parryi), mountain muhly (Muhlenburgia montana), needle and thread (Stipa comata) and sedge (Carex sp.) in the wet areas.

The meadows are grazed yearly by hereford cattle. The stock is turned out approximately June 15 and taken off September 30. On and

off dates vary with range condition and weather (Jerry Rogers pers. comm.).

Methods and Materials. Site selection for placement of the nest boxes was based on the habitat requirements of the mountain bluebird (Bailey and Niedrach 1965, Bent 1949, Scott et al. 1977 and U.S. Department of Agriculture 1979), accessibility of the nest boxes, proximity to Fort Collins and permission of the land owner.

Nest box dimensions are those described by Scott et al. (1977) with a few modifications adapted from designs described by Gary and Morris (1980). The nest boxes were cut from scrap 1.59 cm exterior grade, treated plywood which was obtained from trash piles at local construction sites. In constructing the nest boxes, a 0.5 cm space was left between the top and side panels for ventilation. One-half centimeter of the corners on the bottom was cut off to allow for drainage. To allow access to the nest, one side was hinged by driving nails opposite each other from the front and back of the box near the top of the side piece. This allowed the side door to swing out from the bottom, hinged at the top. A pin (double headed scaffold nail) was used to secure the door in the closed position.

The nest boxes were placed on the meadow edge attached to live ponderosa pines facing east, south or west, approximately 2 m above the ground. Gary and Morris (1980) suggested placing 2 to 4 small nest boxes per 1/2 ha. However, to ensure minimal competition between the birds using the boxes, they were placed at a density of 1 per ha.

The nest boxes were put up in mid-March by the Boy Scouts. Observations began in mid-May to determine species using a box, number of eggs laid and hatched and number of birds fledged from each nest. Each nest box was inspected by lifting the hinged side door and observing the nest. For nests which filled the box and had deep cups, such as a house wren nest, a mirror and flashlight were used to see down into the cup. An effort was made to inspect each of the nest boxes weekly, although this was not always possible due to weather and employment obligations.

Results. Due to the inconsistency of the weekly visits to the area, one basic assumption was made in recording data: the number of birds fledged was equal to the number of eggs or nestlings last observed in the nest, minus the number of unhatched eggs or dead nestlings found in the nest after fledging had occurred. Results of the observations of 38 nest boxes are summarized in Table 1.

Of 38 boxes placed, all showed signs of nesting activity. Thirty-five boxes had eggs laid in them, 31 successfully fledged young, and four of the nest boxes produced two clutches each. In three of the nest boxes nests were built but no eggs were laid.

Pygmy nuthatches (Sitta carolinensis) were the first to establish nests in the boxes. The first nest was built in early May before monitoring began and the second in late May. This early nesting is probably because pygmy nuthatches are year-long residents (U.S.

Table 1. Production in 38 nest boxes placed on Ben Delatour Boy Scout Ranch, northcentral Colorado, 1979

Bird Species	Total				Mean Number Per Nest		
	Nests	Eggs	Hatched	Fledged	Eggs	Hatched	Fledged
Parus gambeli	7	43	25	24	6.1	3.6	3.4
Sialia currucoides	3	15	13	13	5	4.3	4.3
Sitta carolinensis	2	12	11	9	6	5.5	4.5
Troglodytes aedon	27	149	99	93	5.5	3.6	3.4
TOTAL	39	219	148	139			

Department of Agriculture 1979, Bent 1948 and Robbins et al. 1966) and do not migrate to their nesting habitat.

The mountain chickadee (Parus gambeli), mountain bluebird (Sialia currucoides) and house wren (Troglodytes aedon) all began nesting and egg laying during the first week of June. The house wren was the only bird to nest again in mid-July. Accurate determination of incubation times, hatching dates and days until fledging was not possible because of the time span between visits to nest boxes.

House wrens are notoriously aggressive toward other birds for nest sites (Gross 1948), and this may explain the predominance of house wrens in the nest boxes. Placement of the nest boxes also contributed to this dominance. All were placed within 10 m of shrubby vegetation, which is ideal habitat for house wrens (U.S. Department of Agriculture 1979, Scott et al. 1977, Gross 1948 and Kendeigh 1941), thereby increasing their tenacity.

In future nest box projects, if the objective is to attract mountain bluebirds, the following recommendations should be considered to avoid competition from house wrens. The nest boxes should be placed in open fields 50 m from shrubby vegetation. Groupings of 3 or 4 shrubs or single shrubs pose no threat and may be beneficial as a hunting or resting perch. Nest boxes should be mounted on lone trees or in small clumps of trees. They also can be placed on fence posts away from well-traveled roads, if they can be mounted in such a way to avoid damage by cattle.

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SEASONAL REPORT--SUMMER 1981 (June 1 - July 31)

by Elinor Wills
540 Asbury Place, Colorado Springs, CO 80906

This report covers, primarily, the more interesting breeding birds but also includes the rarities. It does not cover the more common breeding birds.

Unfortunately, many of the reports from which this was compiled include numbers of birds seen but no breeding data. For instance, there were only two reports of breeding Yellow-billed Cuckoos but many observations throughout the state. Improved reporting on the breeding status of birds would be an immense help in the preparation of summaries of the nesting season.

Part I

The following table covers some of the more interesting birds for which breeding reports were received. Number is the number of nests or adults seen with young.

Species	Number	Dates	Location
Cattle Egret	8		Riverside Res., Milton Res.
Wood Duck	1	6/6-7/5	Chatfield Reservoir
Goshawk	4	7/9-8/4	E. Colorado foothills
Osprey	6	6/2-8/10	Grand Lake-Walden area
Turkey	1	6/2	Hanna Ranch
Black-billed Cuckoo	1	6/29	Tamarack Ranch near Crook
Roadrunner	1	7/23	South of Pueblo
Barn Owl	1	7/14	Erie
Purple Martin			Summit Lake
Eastern Bluebird	1	6/30	East of Bonny Reservoir

Part II

The following reports are discussed individually as most of them represent changes in the Latilong breeding records.

Eared Grebe--11 nests discovered in the Loveland area during June and July change the Latilong 4 status from "probably breeding" to breeding. (CCu, AM)

White Pelican--Reported a tremendous year with an estimated 700 young produced at Riverside Reservoir where an estimated 100 young were banded on 7/13. (RR)

Common Merganser--Female with 7 young was found on South Platte where it enters Chatfield Reservoir on 6/13 for new breeding record in Latilong 11. (F&JJ)

Black-necked Stilt--2 pairs nesting near Windsor were first observed 6/11 for new breeding record in Latilong 4. (RR, m.ob.)

Flammulated Owl--On basis of 9 birds seen and heard from 7/3 through summer, it should be added to Latilong 4 as "probably breeding" (KC). Although it does not change the Latilong status, there were two nesting owls reported in the Florissant-Divide area (RW) and 6 nests at Manitou Experimental Forest (RR).

Virginia's Warbler--A nest discovered 7/9 with 3 young on Blacktail Creek changes status in Latilong 10 to breeding. They were found in a Douglas fir and aspen area. (DJ)

Chestnut-sided Warbler--Although a nest was not found, observations from 5/25 to 7/11 convinced the observer that they "obviously nested along the canal" west of Loveland, which should change the status in Latilong 4 from Migrant to "likely breeder." (RH)

Orchard Oriole--A nest found and photographed near Berthoud on 7/3 and after provides a new breeding record for Latilong 4. (CCu, RM)

Common Grackle--Young observed with adult 6/28 at Eagle provide a new breeding record for Latilong 10. (JM)

Black-throated Sparrow--Observations throughout June and July provided a view of an adult bird feeding immatures in July on Baculite Mesa, Pueblo, changing status from Migrant to Breeder in Latilong 19. (RB)

Part III

The following observations which are discussed individually are of those rarities which are being reviewed by the Records Committee (marked with an asterisk), birds for which there are no breeding records but which add to the Latilong records, and those for which there are extreme changes in migration dates.

Common Loon--Unusual number of summer reports. 1 in full breeding plumage on Eggleston Lake, Grand Mesa, 6/6 (MJ); 1 at Julesburg Reservoir in full breeding plumage, 6/7 (RA, KK, BR, JW); 3 in non-breeding plumage at Blue Mesa Reservoir 6/10-7/1 and 13 (BBu); 1 at Antero Reservoir 7/30 (RB, TH); 2 immatures in Durango area 7/30 (JZ).

*Olivaceous (Neotropic) Cormorant--One adult at Red Lion State Park 6/29. Possible 3rd state record. Accidental for Latilong 7 (BW, PG, JR, m.ob.).

*Yellow-crowned Night Heron--1 adult at Red Lion State Park 6/29 (BW, PG, m.ob.).

Sora--1 at Hart's Basin 7/12 and Escalante Wildlife Reserve 7/19 and 7/28. The last two are new records for Latilong 15. (MJ)

Semipalmated Sandpiper--9 at Hart's Basin on 7/6 and 6 on 7/19 are new for Latilong 16. (MJ)

Stilt Sandpiper--1 on 7/19 at Hart's Basin is new for Latilong 16. (MJ)

*Glaucous-winged Gull--1 at Antero Reservoir on 7/22-25 would be a first state record. Photographs are on file with the Records Committee. (CC, PG)

Herring Gull--1 at Antero Reservoir on 7/25 would be an early fall record, prior record 8/13/77. (RA)

Bonaparte's Gull--1 at Antero 7/25, also an early fall record, prior being 8/20/77. (RA)

*White-winged Dove--1 in Denver on 6/30. (JS)

*Whip-poor-will--1 remained in Cheyenne Canyon, Colorado Springs 7/15-7/30. Based upon voice it is probably the southwestern race (Caprimulgus vociferus arizonae) and would probably be the first state record for this race. (SB, RB, m.ob.)

Rivoli's Hummingbird--A pair summered near Lake Isabel. (CC)

Willow Flycatcher--3 singing birds at Escalante Wildlife Reserve provide a first record for Latilong 15. (MJ)

Prairie Warbler--1 at Tamarack Ranch on 7/4. (S&DL)

*Kentucky Warbler--1 observed at Durango 6/1 (GC, LS). A singing male first found in Boulder 6/11 remained until at least 7/7. (BW, m.ob.)

Dickcissel--1 found 6/22 at Manitou Lake near Woodland Park would provide a first record for Latilong 18. (BB, WWB, EW)

*White-winged Crossbill--3 birds were seen and photographed in Teller County 6/23. (RB, TL, J&RW). Several other reports from Teller and Park Counties.

Observers

Robert Andrews (RA), Mr. & Mrs. Bill Bouton (BB), W.W. Brockner (WWB), Steve Brown (SB), Richard Bunn (RB), Bart Butterfield (BBu), Charles Chase (CC), Gloria Childress (GC), Kevin Cook (KC), Camille Cummings (CCu), Peter Gent (PG), Ron Harden (RH), Truman Holtzclaw (TH), Mark Janos (MJ), David Jasper (DJ), Frank and Jan Justice (F&JJ), Kate Kittleman (KK), Tom Larcher (TL), Steve & Diane Larson

(S&DL), Jack Marchant (JM), Ann Means (AM), Rusty Mueller (RM), Jack Reddall (JR), Bob Righter (BR), Ronald Ryder (RR). Laura Stransky (LS), Judd Sundine (JS), Judy Ward (JW), Jim & Rosie Watts (J&RW), Bruce Webb (BW), Elinor Wills (EW), Roberta Winn (RW), Mr. & Mrs. Junus Zook (JZ).

ANNUAL LATILONG BREEDING BIRD TRIP

The annual latilong breeding bird trip this year will be to Latilong 9, Glenwood Springs. It will take place on the weekend of June 26 and 27, 1982. The trip will be based in Glenwood Springs, where we will meet on the evening of Friday, June 25. Everyone will be very welcome, for either one or both days of the weekend. The leader will be Victor Zerbi, 1118 Red Mountain Drive, Glenwood Springs, CO 80601, (H) 945-6017. Call Vic or Peter Gent (H: 494-1750) for further information regarding the trip.

Saturday - June 26. Indian Peaks Breeding Bird Count. Sponsored by Boulder Audubon Society. The survey will be conducted in the Indian Peaks Christmas bird count circle and the areas to be covered include Nederland, Ward, Brainard Lake, Mt. Audubon, Rainbow Lakes, Caribou, Arapahoe Peaks, and Rollins Pass. Strenuous hikes, easy walks, and car trips are all available. Call Mike Figgs, 447-1899 in Boulder, or Dave Hallock, 258-7254 in Eldora.

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