C.F.O. Journal

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CFO JOURNAL is devoted to the field study of birds in Colorado. Articles and notes of scientific or general interest, and reports of unusual observations, are solicited. Send manuscripts, with photos and drawings to: Peter Gent, 55 S. 35th St., Boulder, CO 80303. Send rare bird reports to: CFO Official Records Committee, c/o Zoological Collections, Denver Museum of Natural History, City Park, Denver CO 80205.

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Cover Photograph: Black-crowned Night Heron by Paul Gorenzel. This photograph won first prize in the CFO Annual Photography Contest and was shown, along with the other prize-winning entries, at the Annual Convention. Paul Gorenzel formerly lived in Fort Collins where he earned an M.S. in Wildlife Biology from CSU. He is currently an extension wildlife specialist with the University of California at Davis. He used a "muskrat blind" to approach the heron nest, which was at Lake John Annex near Walden in North Park.

C.F.O. ANNUAL TREASURER'S REPORT
ESTES PARK, COLORADO -- JUNE 1981

by Judd Sundine
5325 Garland, Arvada, CO 80002

	INCOME	EXPENSES
1980 balance on hand	$1556.07	
Dinners at 1980 convention		$ 544.30
1980 convention rooms		97.78
Correspondence, bank charges & postage		520.74
Journals Vol. 14-#2/15-#2		1330.09
Clinics		33.75
Miscellaneous		2.00
Dues, contributions, latilongs, profit on 1980 convention, art sales, book sales, library subscriptions, interest on savings	4145.13	
	$5701.20	$2528.66

Balance on hand 1981 meeting (income minus expenses): $3172.54

Balance on hand 1980 meeting: $1556.07
Balance on hand 1981 meeting: $3172.54

SEASONAL REPORT: FALL 1980

by Kevin Cook
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Recent discussion about seasonal reports (SRs) in the Journal reflects growth in the CFO organization. I categorically agree with Bob Andrews' remarks concerning SRs (CFO Journal, Vol. 15, No. 1) but am compelled to comment further.

The foundation purpose for any state bird group must be the welfare of the birds themselves. Even the most ardent recreational birders must accept this premise for recreational birding depends entirely upon the birds. Colorado suffers the threat of having its avifauna radically altered before many fundamental questions are answered. One may also reasonably argue that drastic changes have already occurred and will continue to occur before many important questions are even asked. This unfortunate dilemma is due to the rate of environmental change outpacing the rate of information gain.

Government agencies, whether local, state, or federal, cannot be expected to solve and resolve all the state's bird problems. Nor can the academic community be expected to fill all the gaps. The state bird groups provide the single best opportunity for contributing to the resolution of many bird problems. Seasonal reports, if properly executed, can be an invaluable tool for future problem solvers. (I must emphasize that SRs are a tool and not an end product.) That is why recent SR discussions are not only useful but desirable. They properly connote growth, a vital organizational function.

Information character ranks paramount among all SR concerns. The accounts absolutely must reflect the activity of birds and not the activity of birders. This is a goal to which SR modifications should be directed. For example, in individual reports beware of the trap of inconsistent statements. This common error appears in two parts: an introductory remark about how little time the observer has spent afield followed later by an exclamation about how few birds the observer has seen accompanied by a worrisome note about population declines. If you are spending less time afield, you will naturally see fewer birds. You will also not develop an intuition about populations nor generate the data to support claims about declines.

Many people and groups have submitted quite useful notes though the present SR format does not allow for the best use of those reports. Foothills Audubon Club turned in an excellent account of Yellow-billed Cuckoos. The report documented 23 sightings in the Longmont-Lyons-Boulder area complete with specific localities, dates, and observers. Such details of species are especially useful as are repetitive and well-recorded trips to the same birding areas. In general, I did not reiterate all the material available in the very complete Lark Bunting published by the Denver Field Ornithologists as I judged it too redundant.

In the following list are all the species seen in the fall of 1980 and my comments on some of them. Asterisks (*) indicate reports of unusual birds, localities or dates to be reviewed by the Records Committee.

SPECIES REPORTED IN COLORADO BIRD OBSERVATIONS
1 August - 30 November 1980

COMMON LOON - scattered reports from across the state including Durango, Delta, Grand Junction, and the eastern foothills and plains; ARCTIC LOON - several Denver-area reports (DFO); *RED-THROATED LOON - good details from Richard Rosche of Nebraska about an observation on Julesburg Res on 11/29, also mentioned by DFO; HORNED GREBE - a few reports all from the eastern half of state; EARED, WESTERN, and PIED-BILLED GREBES - reports from all over the state; WHITE PELICAN - 3 on William's Fork Res on 8/6 (BC), DFO reported 2000 in northeastern Colorado on 10/18; DOUBLE-CRESTED CORMORANT - 6 on Highline Res near Grand Junction on 10/19 (BT), DFO reported 1600 in northeastern Colorado on 9/26; GREAT BLUE HERON - reports from all over the state; NORTHERN GREEN HERON - a few reports from the plains adjunct to the foothills; GREAT EGRET - one report from the Boulder-Longmont area; SNOWY EGRET - specifically mentioned in San Luis Valley (SLV) (JK) and Ft. Collins (RAR), more reports commented about not seeing any; BLACK-CROWNED NIGHT HERON - reports from Ft. Collins and Colorado Springs; WHITE-FACED IBIS - JK feels their population declined in SLV; WHISTLING SWAN - a few here and there from border to border across northern half of state; CANADA GOOSE; SNOW GOOSE; ROSS' GOOSE - one on McCall Lake on 11/15 (PM); MALLARD; GADWALL; PINTAIL; GREEN-WINGED TEAL; BLUE-WINGED TEAL: CINNAMON TEAL; AMERICAN WIGEON; NORTHERN SHOVELER; WOOD DUCK - widely reported including several in Fruita (BT); REDHEAD; RING-NECKED DUCK; CANVASBACK; LESSER SCAUP; COMMON GOLDENEYE; BARROW'S GOLDENEYE - 3 in Grand Junction on 11/29 (BT); BUFFLEHEAD; WHITE-WINGED SCOTER - one on Windsor Lake on 10/20 (MS); SURF SCOTER - several reports from Ft. Collins to Colorado Springs all in plains reservoirs near the foothills; RUDDY DUCK; HOODED MERGANSER - several reports from reservoirs near the urban centers; COMMON MERGANSER; RED-BREASTED MERGANSER; TURKEY VULTURE; MISSISSIPPI KITE - VT reports many in the Lamar area, one 4 miles SE of Loveland on 8/17 (ML), an unusual location for the species in Colorado; GOSHAWK, SHARP-SHINNED and COOPER'S HAWKS - all mentioned from various localities with Sharp-shinned Hawks being most visible; RED-TAILED HAWK; BROAD-WINGED HAWK; SWAINSON'S HAWK - reports well into November; ROUGH-LEGGED HAWK; FERRUGINOUS HAWK; GOLDEN EAGLE; BALD EAGLE; NORTHERN HARRIER - many reports throughout the state; OSPREY - mentioned by VT near Pueblo and DJ in the Granby area; PRAIRIE FALCON; PEREGRINE FALCON - HEB observed one on 8/9 in RNMP; MERLIN; AMERICAN KESTREL; BLUE GROUSE; WHITE-TAILED PTARMIGAN; SAGE GROUSE - 5 near Kremmling on 8/16 (DJ); BOBWHITE - one report near Boulder; SCALED QUAIL - J&RW observed up to 40 at Hanna Ranch on many occasions; GAMBEL'S QUAIL - 20-40 near Grand Junction seen regularly (BT); RING-NECKED PHEASANT; CHUKAR - a few seen irregularly around Grand Junction (BT); TURKEY - 4 on Buckhorn Cr near RMNP on 10/21 (WR), a few seen on 8/31 by RT near Flagstaff Mountain, Boulder; WHOOPING CRANE - JK reported 14 of 15 adults

and 1 of 5 young of the Gray's Lake flock stopped in SLV, *JP reported the bird that summered near Antero Res stayed into fall; SANDHILL CRANE; VIRGINIA RAIL - a few reports from marshes near urban centers; SORA; AMERICAN COOT; SEMIPALMATED PLOVER; SNOWY PLOVER; KILLDEER; MOUNTAIN PLOVER - 1 report from Colorado Springs; BLACK-BELLIED PLOVER - JK mentioned that few were seen in SLV; RUDDY TURNSTONE - 1 at Barr Lake on 9/14 and 1 at Union Res on 9/9 (PM); COMMON SNIPE; LONG-BILLED CURLEW - 5 at Eleven-Mile Res on 8/22 (RW), JK mentioned presence in SLV, 1 50 miles SE of Colorado Springs on 8/9 (EW); UPLAND SANDPIPER - JR reported several from Ft. Morgan area; SPOTTED SANDPIPER; SOLITARY SANDPIPER; WILLET; GREATER YELLOWLEGS - many reports, WR felt the single bird in Estes Park on 11/16 was quite late; LESSER YELLOWLEGS; RED KNOT - 1 at Union Res on 9/8 and 12 (PM); PECTORAL SANDPIPER; WHITE-RUMPED SANDPIPER; BAIRD'S SANDPIPER; LEAST SANDPIPER; LONG BILLED DOWITCHER; STILT SANDPIPER; SEMIPALMATED SANDPIPER; WESTERN SANDPIPER; MARBLED GODWIT; *HUDSONIAN GODWIT - 1 near Loveland on 8/17 (ML) an odd location and time of year for this species in Colorado; SANDERLING; AMERICAN AVOCET; BLACK-NECKED STILT; WILSON'S PHALAROPE; NORTHERN PHALAROPE - 3 seen on the Ft. Collins Fall Bird Count; HERRING GULL - several in Grand Junction (BT); CALIFORNIA GULL; RING BILLED GULL; FRANKLIN'S GULL; BONAPARTE'S GULL; *LITTLE GULL - 1 at Barr Lake on 9/14 (PM); BLACK-LEGGED KITTIWAKE - 1 seen on Horseshoe Lake near Loveland on 8/22 (ML); SABINE'S GULL - 1 at Cherry Creek Res on 10/31 (MS), 1 at Baseline Res on 10/31 and 11/2 (PM); FORSTER'S TERN; COMMON TERN - PM reported several at Union Res and thought one on 10/17 quite late; LEAST TERN - one reported near Loveland on 8/17 (ML); *CASPIAN TERN - 1 at Sloan's Lake in Denver on 8/11 (JRC), 1 at Chatfield Res SW of Denver on 9/14 (H&UK); BLACK TERN; BAND-TAILED PIGEON - many reports including 1 seen near Pueblo on 12/5 (VT) a late bird; ROCK DOVE; MOURNING DOVE; YELLOW-BILLED CUCKOO - FAC reported 23 observations around Longmont-Loveland-Hygiene-Lyons area. Other reports came from Durango, Denver and Ft. Collins; BLACK-BILLED CUCKOO - one report from Boulder; BARN OWL - 2 at Bonny Res on 10/4 (PG); SCREECH OWL; FLAMMULATED OWL - RW reported birds west of Colorado Springs; GREAT HORNED OWL; SNOWY OWL - an early report from CC in Berthoud on 9/14; PYGMY OWL; BURROWING OWL - many reports near urban centers; LONG-EARED OWL; SHORT-EARED OWL; SAW-WHET OWL; POOR-WILL; COMMON NIGHTHAWK; BLACK SWIFT - single sightings from Durango (EF), Colorado Springs, Ridgway and Boulder; CHIMNEY SWIFT - H&UK saw last birds in early September; WHITE-THROATED SWIFT; BLACK-CHINNED HUMMINGBIRD - 1 reported in Colorado Springs on 8/14 (EW); BROAD-TAILED HUMMINGBIRD; RUFOUS HUMMINGBIRD; CALLIOPE HUMMINGBIRD - CH and KH reported birds from early July through mid-August near Fairplay; *RIVOLI'S HUMMINGBIRD - 1 reported in Gould on 8/19 (ML); *BLUE-THROATED HUMMINGBIRD - 1 reported in Ridgway on 8/22 (DG); BELTED KINGFISHER; COMMON FLICKER; RED-HEADED WOODPECKER - 1 reported at 9800 feet 1/4 mile W of Jefferson in Jefferson Co on 9/1 (CH and KH); *ACORN WOODPECKER - 1 reported by DG at Billy Creek S of Montrose on 9/5, there are no state records at present; LEWIS' WOODPECKER - reports from all over the state; YELLOW-BELLIED SAPSUCKER; WILLIAMSON'S SAPSUCKER; HAIRY and DOWNY WOODPECKERS; NORTHERN THREE-TOED WOODPECKER - 1 seen on the Ft. Collins Fall Bird Count was the only report; EASTERN KINGBIRD; WESTERN KINGBIRD; CASSIN'S KINGBIRD; ASH-THROATED FLYCATCHER - only report

came from JR in Ft. Morgan with 1 bird on 10/5 through 10/7; EASTERN PHOEBE - JR saw one in Ft. Morgan on 8/18; SAY'S PHOEBE; WILLOW, LEAST, HAMMOND'S, DUSKY, GRAY, and WESTERN FLYCATCHERS; *EASTERN WOOD PEWEE - VT had a good opportunity to compare the two pewees when this species showed up near Colorado City on 8/6; WESTERN WOOD PEWEE; OLIVE-SIDED FLYCATCHER; HORNED LARK; VIOLET-GREEN, TREE, ROUGH-WINGED, BARN AND CLIFF SWALLOWS; GRAY JAY; BLUE JAY; STELLER'S JAY; SCRUB JAY - several people noted a scarcity; BLACK-BILLED MAGPIE; COMMON RAVEN; WHITE-NECKED RAVEN; COMMON CROW; PINYON JAY; CLARK'S NUTCRACKER - DJ observed them near Radium and Grand Lake Village, EF mentioned them near Durango; BLACK-CAPPED CHICKADEE; MOUNTAIN CHICKADEE; PLAIN TITMOUSE - MJ found 4 at Billy Creek near Montrose on 9/6; COMMON BUSH-TIT; WHITE-BREASTED NUTHATCH; RED-BREASTED NUTHATCH; PYGMY NUTHATCH; BROWN CREEPER - WR noted a small resident group in Estes Park; DIPPER; HOUSE WREN; WINTER WREN - VT reported an observer seeing 1 in mid-November near Rye; BEWICK'S WREN; LONG-BILLED MARSH WREN - MJ saw 1 at Sweitzer Lake on 10/25; CANYON WREN; ROCK WREN; MOCKINGBIRD; GRAY CATBIRD; BROWN THRASHER; CURVE-BILLED THRASHER - J&RW made several observations of 3 birds at Hanna Ranch; SAGE THRASHER; AMERICAN ROBIN; WOOD THRUSH - HS observed 1 in Boulder on 10/3; HERMIT THRUSH; SWAINSON'S THRUSH; EASTERN BLUEBIRD - J&RW saw a single bird at Hanna Ranch on 10/19; WESTERN BLUEBIRD - 1 at Estes Park on 8/10 (HEB), 1 in Grand Junction on 10/31 (BT); MOUNTAIN BLUEBIRD; TOWNSEND'S SOLITAIRE; BLUE-GRAY GNATCATCHER; GOLDEN-CROWNED KINGLET - 1 from JR in Ft. Morgan, 2 seen near Eagle on 8/17; RUBY-CROWNED KINGLET; WATER PIPIT - DJ observed a few on Trail Ridge Rd, 10 were seen on 8/31 near Eagle; CEDAR WAXWING; NORTHERN and LOGGERHEAD SHRIKES; STARLING - amazing how few people bother with Starlings especially considering that an increase in Starlings may account for decreases in other species; *BELL'S VIREO - 1 reported in Ridgway on 8/24 (DG); GRAY VIREO; SOLITARY VIREO; RED-EYED VIREO; PHILADELPHIA VIREO - MS banded 1 in Aurora on 9/8, EF reported 1 in Durango on 9/9, JR reported 1 in Ft. Morgan on 9/20; WARBLING VIREO; TENNESSEE WARBLER; ORANGE-CROWNED WARBLER; NASHVILLE WARBLER - MS saw 1 on 10/18 and another on 10/25 in Aurora, also reported from Boulder (MG&PC) and Ridgway (DG); VIRGINIA'S WARBLER; YELLOW WARBLER; MAGNOLIA WARBLER - DJ found one near Radium on 8/23; BLACK-THROATED BLUE WARBLER; YELLOW-RUMPED WARBLER; BLACK-THROATED GRAY WARBLER - DJ saw 2 near Radium on 8/12, MJ & DG both reported them from the Ridgway area, WWB noted them around Evergreen; TOWNSEND'S WARBLER - many statewide reports (except plains); BLACK-THROATED GREEN WARBLER - PG reported them at Bonny Res on 10/4; *GRACE'S WARBLER - PC reported 1 in Boulder on 10/18, an unusual locality for this species; BAY-BREASTED WARBLER; PALM WARBLER - 1 at Barr Lake on 9/6 (HEB), 1 in Morrison on 10/25 (H&UK), 1 in Ridgway on 10/24 (DG); NORTHERN WATERTHRUSH - F&JJ observed one SW of Denver on 8/30; MacGILLIVRAY'S WARBLER; COMMON YELLOWTHROAT; YELLOW-BREASTED CHAT; WILSON'S WARBLER - WWB remarked from Evergreen: "Never have I seen so many."; AMERICAN REDSTART; HOUSE SPARROW; WESTERN MEADOWLARK; YELLOW-HEADED BLACKBIRD; RED-WINGED BLACKBIRD; ORCHARD ORIOLE - seen on the Ft. Collins Fall Bird Count; NORTHERN ORIOLE - JR noted a Baltimore race in Ft. Morgan on 9/11; RUSTY BLACKBIRD - 1 seen at Windsor Lake on 10/31 by MS; BREWER'S BLACKBIRD; COMMON GRACKLE; BROWN-HEADED COWBIRD; WESTERN TANAGER; ROSE-BREASTED GROSBEAK - WR reported 1 at an

Estes Park feeder on 10/22, PW saw 1 in Boulder on 10/26 through 11/7, fall records for this species are rare; BLACK-HEADED GROSBEAK; BLUE GROSBEAK; INDIGO BUNTING; LAZULI BUNTING; EVENING GROSBEAK; PURPLE FINCH - 1 on 11/24 in Ft. Collins (RAR); CASSIN'S FINCH; HOUSE FINCH; PINE GROSBEAK; GRAY-CROWNED ROSY FINCH; BROWN-CAPPED ROSY FINCH - 50 plus on 11/11 on Bowen Mtn Trail and 21 in Winter Park (DJ); PINE SISKIN; AMERICAN GOLDFINCH; LESSER GOLDFINCH; RED CROSSBILL; GREEN-TAILED TOWHEE; RUFOUS-SIDED TOWHEE; BROWN TOWHEE - J&RW made several observations of 2 individuals at Hanna Ranch; LARK BUNTING - 2 Western Slope and 2 Eastern Slope reports; SAVANNAH SPARROW - CC thought one in Berthoud on 9/17 a bit late; *LECONTE'S SPARROW - RAR reported 1 on the Ft. Collins Fall Bird Count; VESPER and LARK SPARROWS; DARK-EYED and GRAY-HEADED JUNCOS; *RUFOUS-CROWNED SPARROW - PW saw 1 in Boulder on 9/14, an unusual locality; CASSIN'S SPARROW - VT reported a nest with eggs on 8/6 near Pueblo West; TREE, CHIPPING, CLAY-COLORED, BREWER'S and FIELD SPARROWS; *BLACK-CHINNED SPARROW - 1 reported 1/2 mile W of Berthoud on 11/26 (CC), there are no state records at present; HARRIS', WHITE-CROWNED and WHITE-THROATED SPARROWS; FOX SPARROW - DG saw 2 in Ridgway; LINCOLN'S SPARROW; *SWAMP SPARROW - DG reported 2 immature individuals in Ridgway on 10/12-18; SONG SPARROW; LAPLAND LONGSPUR.

Contributors

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A BRIEF DESCRIPTION OF FLIGHT AND NECESSARY ADAPTATIONS IN BIRDS

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One of the most fascinating aspect of birds is their capability of flight. People have tried to simulate this intriguing type of locomotion, and have succeeded only by the use of extraneous equipment. Understanding the basic principles of flight allowed the design of flying machines, which humans have to use because the species has evolved a walking type of locomotion. This implies that we do not have a streamlined shape, are not lightweight, and do not have many other attributes that are necessary for flight. Birds have evolved a flying type of locomotion so they have undergone numerous and complex adaptations for flight. It is the purpose of this paper to very briefly and simply explain the basic principles of flight as seen in birds, and to list some of the major adaptations which allow birds to fly.

The basic principles of flight are fairly easy to understand. There are four different components to flight: lift, gravity, thrust, and drag. Lift overcomes gravity and thrust overcomes drag. If the lift is stronger than gravity there will be an upward movement, and if thrust is stronger than drag there will be a forward movement. In birds the shape of their wings provide both lift and thrust. Birds also provide lift and thrust by flapping their wings. This has properties similar to those used by a parachute. They capture as much air as possible underneath their wings and then push themselves up and forward.

The basic shape of the wing is such that the upper surface is convex while the lower surface is slightly concave (Welty, 1975). This causes the air passing over the top to travel a farther distance than the air below the wing. When a wing moves through the air it causes the air molecules to separate much like water separating ahead of a swimmer. The air (or water) molecules that were near each other before they were separated must be near each other when the wing (or swimmer) passes. If not, a vacuum would be created, which is not possible. This means that the air passing over the top of the wing must travel faster than the air on the bottom (Tipler, 1976). Hence the air particles are more widely spaced on the top than on the bottom, much like faster traffic is more spread out on the freeway than slower traffic which gets bunched up. Consequently, a "suction effect" occurs on the top while the lower surface has greater pressure (Pettingill, 1972). This provides the bird with lift which counteracts gravity. The basic shape of the wing can also provide some forward movement (thrust). By having the front edge of the wing lower than the back the "suction effect" creates some thrust. There are two different ways that the front edge will be lower. The first is that the bird can use its muscles to twist its wing--much like we twist our arm when turning a door knob. The second way is not under direct control

of the bird. It is due mainly to the construction of the secondaries and to some extent the primaries (feathers at the back of the wing). When flapping down, these feathers bend up at the ends which causes the front edge of the wing to be lower than the back (Welty, 1975).

A more active way that a bird can achieve lift and thrust is by what I earlier called the parachute effect. This occurs during flapping flight. On the downstroke, the wing is pushing against the air. Because the wing's front edge is lower than the back, the bird is pushing itself forward through the air. The feathers are constructed such that the vane on one side of the rachis (the stiff center shaft) is wider (the inner web) than the other (the outer web). This allows for more flexibility in the inner web than in the outer web. The primaries and secondaries are arranged in an overlapping manner such that the inner web is on the underside of the wing and the stiffer, less bendable outer web is exposed on the top (Wallace and Mahan, 1975). Therefore, when the bird flaps down the bendable side is pushed up against the stiffer outer web that overlaps it. This allows very little air to pass through the feathers. Hence, as much air as possible is trapped under the wing to push against. On the upward stroke, the bird wants to capture as little air as possible. The structure of the feathers aid in this too. On the upstroke, the air pushes the flexible inner web away from the stronger outer web, which is overlapping it. Thus slots are formed in the wing that allow air to flow through. Hence, very little air is pushed against on the upstroke.

The structure of the feathers are just one of the many adaptations birds have undergone that allow them to fly. Obviously, the wing is the most important aspect of the birds' flight capabilities, but without other modifications flight would not be possible. Major modifications have occurred in 9 of the 10 major vertebrate systems which are: (1) integument, (2) skeletal, (3) muscular, (4) circulatory, (5) respiratory, (6) digestive, (7) excretory, (8) reproductive, (9) nervous, and (10) endocrine (Anthony, 1967). No major modification has been found in the endocrine system. Perhaps this is because it is a fairly new field of study. All of the adaptations of these systems either decrease weight, increase metabolic efficiency, or both.

There are many adaptations in the integument (skin). The obvious adaptation is the presence of feathers. These provide insulation, thereby allowing birds to be homeothermic (warm blooded). They also provide a strong, light protection for the thinner than expected skin. The only gland present on the skin is the uropygial gland which is located just above the base of the tail (Pettingill, 1972). It provides oil which is used in preening and it may also provide a source of Vitamin D (Welty, 1975). The feathers also allow for a streamlined covering.

The bones have undergone many changes. They have become hollow, which makes them much lighter but consequently they are weaker. There are at least four methods to provide strength. First, which is the

main way that strength is restored, is by fusing of the bones (Welty, 1975). For example, the wishbone (furcula) is the result of the two clavicles fusing. Second, a lattice structure has developed in the hollows. Third, the air sacs for the lung extend into some of these hollows (i.e., a filled balloon is more rigid than an almost empty one). Finally, many of the bones have been completely lost.

The muscles themselves have not undergone much modification, but their placements have. The muscles have been moved in toward the center-of-mass (Welty, 1975). This has been done by developing long tendons. The best example of this occurs in the leg. Think of a drumstick. Most of the meat (muscle) is at the top and the lower portion is full of tendons. Placing the muscles high on the leg, closer to the center-of-mass, makes the bird more aerodynamic. Yet the long tendons allow for normal function of the legs.

The circulatory system is very similar to mammals. The main difference is that it usually works nearer to capacity. It takes very little for a bird to have a heart attack. Proportionally, the bird has a larger heart and higher blood pressure (Gordon, 1977).

The respiratory system is the most efficient of all the vertebrates. It is a flow-through system instead of a dead-end system. At any given time, a bird has fresh air in its lung. This is accomplished in the following way. With the first inhalation the air is put into the posterior, fresh-air storage sacs. On the first exhalation, this fresh air is pushed from the storage sac into the lung itself. During the second inhalation, the air in the lung is pushed into the anterior, stale-air storage sacs. (At the same time fresh air is going into the posterior, fresh-air storage sacs.) Finally, this stale air is forced out on the second exhalation (Gordon, 1977). (Again, the fresh air is being pushed from the posterior storage sacs into the lung itself.) The storage sacs are also used to cool the body. As mentioned before, some of the air is stored in hollows of the bones.

The digestive system is also very efficient. It is a very fast system. It must be since food weighs a lot. Some birds do have crops that store food for a while. There are two stomachs. One is glandular, which secretes digestive juices, and the other is the gizzard which grinds up the food. The gizzard allows for the elimination of teeth and large jaw muscles which are heavy. According to Welty (1975), about 95% of the consumed food matter is used, which is a much larger percentage than for other vertebrates.

Birds have no bladders, which is a major adaptation of the excretory system. Interestingly bladders, which are heavy, have re-evolved in the Ostrich (Welty, 1975). Another important adaptation of the excretory system is that birds excrete uric acid, which is not water soluble (Gordon, 1977). This is very important when the embryo is developing in the egg. If the excreted waste were water soluble, the embryo would be poisoned. This development allows for some adaptations in the reproductive system.

A female bird could not fly if the young were developing inside her body because of the extra weight of the embryo. Therefore, all birds are oviparous (lay eggs). There are no external genitals because they would hamper flight. Since only one egg can be formed at a given time, there is only one active ovary (Gordon, 1977). The gonads are also heavy to carry so they atrophy when not in use.

The nervous system has not undergone many changes. The major one is that the cerebellum has increased in size and importance (Gordon, 1977). This is the area of the brain that is responsible for equilibrium and muscular actions necessary for flight (Pettingill, 1972).

Preliminary study of the endocrine system has shown some interesting connections between hormones and migration. More study needs to be done, however, before cause and effect can be determined.

Obviously the bird is very well tuned to its major type of locomotion. Through time, many adaptations have evolved to allow flight. These adaptations are numerous and very interrelated. The wing is the major adaptation, but without the others, birds would perhaps be able to glide but not fly efficiently. Humans have not undergone these adaptations, and must use extraneous equipment to fly. By studying bird flight, we have been able to understand the principles of flight and this has allowed us to design the necessary equipment of flying machines.

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NEW EXTREME DATES FOR LANE AND HOLT'S BOOK

by Larry Halsey
6422 Bluebird Avenue, Longmont, CO 80501

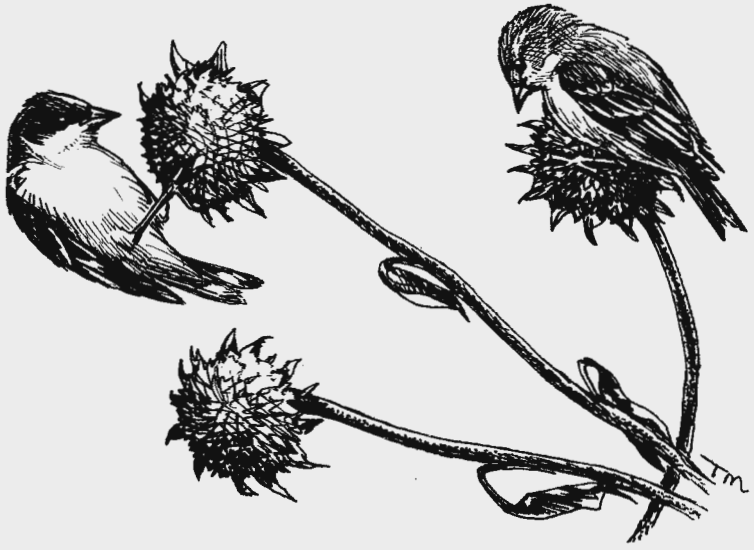
Since James Lane and Harold Holt last revised their book "A Birder's Guide to Eastern Colorado," new extreme arrival and departure dates for migrating birds have been gathered by Harold. He got this information mainly from the publications of Colorado Ornithology groups, but would appreciate receiving information directly from birdwatchers around the state. It should be emphasized that the observations listed in the following two tables are just for the area covered by the book, the Eastern Colorado plains.

SPRING MIGRATION

Species	New Extreme	Status	Previous Extreme
Red-necked Grebe	2-9-80	early	2-28-71
Little-blue Heron	4-3-81	early	4-12-75
Sharp-shinned Hawk	6-3-79	late	5-29-77
Rough-legged Hawk	6-6-80	late	6-4-61
Sandhill Crane	2-9-80	early	2-14-62
Mountain Plover	3-14-79	early	3-18-78
Marbled Godwit	6-8-80	late	5-22-76
Whimbrel	5-26-80	late	5-18-61
Lesser Yellowlegs	3-20-80	early	2-27-77
Willet	4-3-79	early	4-6-75
Long-billed Dowitcher	3-17-79	early	3-21-76
Red Knot	5-29-79	late	5-23-59
Least Sandpiper	6-2-79	late	5-29-77
Pectoral Sandpiper	3-24-80	early	3-26-66
Sanderling	4-13-80	early	4-15-56
Semipalmated Sandpiper	4-4-80	early	4-9-72
Western Sandpiper	6-2-79	late	6-1-68
Dunlin	4-1-79	early	4-13-66
Stilt Sandpiper	4-17-78	early	4-20-75
Stilt Sandpiper	6-10-79	late	6-4-77
Least Tern	5-7-80	early	5-20-61
Yellow-billed Cuckoo	5-3-79	early	5-8-61
Snowy Owl	4-13-80	late	3-25-71
Common Nighthawk	4-23-81	early	4-30-69
Western Kingbird	3-31-79	early	4-6-56
Ash-throated Flycatcher	4-22-79	early	4-24-56
Ash-throated Flycatcher	7-9-77	late	6-26-59
Eastern Phoebe	4-5-80	early	4-8-55
Say's Phoebe	3-11-79	early	3-17-74
Gray Flycatcher	4-30-80	early	5-8-75
Western Flycatcher	5-27-80	late	5-26-68
Clark's Nutcracker	5-23-78	late	5-15-73
Gray Vireo	5-11-79	early	5-16-07

Species	New Extreme	Status	Previous Extreme
Philadelphia Vireo	5-25-80	late	5-19-56
Worm-eating Warbler	4-19-80	early	4-22-65
Worm-eating Warbler	5-27-79	late	5-20-76
Orange-crowned Warbler	3-26-81	early	4-19-61
Nashville Warbler	6-4-81	late	5-31-78
Virginia's Warbler	5-31-80	late	5-23-59
Hermit Warbler	4-15-79	early	5-7-78
Yellow-throated Warbler	5-28-79	late	5-18-57
Grace's Warbler	4-26-81	early	4-25-1899
Prairie Warbler	5-7-80	early	5-10-75
Northern Waterthrush	6-5-78	late	6-4-76
Connecticut Warbler	5-14-79	early	5-21-60
Hooded Warbler	4-7-79	early	4-8-78
Wilson's Warbler	6-8-78	late	6-5-71
Bobolink	4-25-80	early	5-8-57
Indigo Bunting	4-20-79	early	4-26-71
Savannah Sparrow	3-18-80	early	3-23-61
Tree Sparrow	5-17-80	late	5-11-75
Grasshopper Sparrow	4-25-81	early	5-1-78
Brewer's Sparrow	4-14-78	early	4-16-71
Field Sparrow	6-2-79	late	5-24-70
Fox Sparrow	6-2-79	late	5-20-78
	FALL MIGRATION		
Red-throated Loon	10-26-80	early	10-27-76
Red-throated Loon	12-25-77	late	12-23-56
Great Egret	10-20-79	late	10-5-56
Snowy Egret	10-20-79	late	10-12-57
Osprey	8-17-79	early	8-28-78
Merlin	8-16-80	early	9-3-77
Sandhill Crane	8-26-80	early	8-27-73
Ruddy Turnstone	8-5-79	early	8-11-77
Long-billed Curlew	9-30-79	late	9-12-74
Upland Sandpiper	9-10-78	late	8-22-36
Red Knot	8-3-78	early	8-6-78
Flammulated Owl	9-17-80	late	9-13-64
Snowy Owl	10-29-78	early	11-8-74
Rufous Hummingbird	10-1-78	late	9-28-64
Blue-throated Hummingbird	9-23-78	late	9-7-70
Williamson's Sapsucker	10-28-78	late	10-17-70
Eastern Kingbird	9-23-79	late	9-22-65
Ash-throated Flycatcher	10-5-80	late	9-29-70
Willow Flycatcher	8-18-79	early	8-22-56
Gray Flycatcher	9-23-79	late	9-5-72
Violet-green Swallow	8-24-80	early	8-28-76
Common Raven	9-8-79	early	9-10-72
Water Pipit	8-31-80	early	9-5-74
Cedar Waxwing	8-24-80	early	8-27-76
Tennessee Warbler	11-4-79	late	10-25-74
Northern Parula Warbler	9-8-79	early	9-22-63

Species	New Extreme	Status	Previous Extreme
Townsend's Warbler	8-9-80	early	8-19-61
Blackburnian Warbler	11-19-78	late	10-29-74
Northern Waterthrush	10-18-73	late	10-4-59
Wilson's Warbler	11-13-80	late	11-8-76
Orchard Oriole	9-19-80	late	9-13-72
Summer Tanager	8-15-79	early	8-21-77
Pine Grosbeak	11-22-79	late	11-18-75
Vesper Sparrow	11-12-80	late	11-9-63
Clay-colored Sparrow	10-31-80	late	10-26-68



PINE SISKINS sketch by Tim Manolis of Boulder

THE FIRST NESTING OF VERMILION FLYCATCHERS IN COLORADO

by Helen Downing
371 Crescent Drive, Sheridan, WY 82801

A male Vermilion Flycatcher, Pyrocephalus rubinus, was first observed by Florence and G.D. (Del) Davidson on April 29, 1981 at their farm about 23 miles NE of Akron, Colorado. On May 1, I confirmed the identification and also located a female.

The habitat was a mature shelterbelt consisting of 70 foot Chinese Elm trees, Squawbush, a few shrub-sized Mulberry trees, some Salt Cedar, a few Ponderosa Pine, some Wild Plum and Sand Cherries. Dryland agricultural and pasture land surrounds the shelterbelt. The farm home is located approximately 200 feet to the east of the shelterbelt and there are various farm outbuildings in the vicinity. Historic Summit Springs lies about 1-1/2 miles to the northwest.

I first saw the male Vermilion Flycatcher high in the Chinese Elm. The female was nearby and readily identifiable partly because of the excited attention paid by the male. (A detailed description is on file with the CFO Records Committee.) Both birds were very active--the male following the female wherever she went--definitely a mated pair. The female was very "broody," nestling her body into several crotches in the tall elms. She was observed to carry nesting material to one particular crotch and an accumulation of nesting material was there. She nestled down in this material, remaining there for several minutes at a time. She was also seen to nestle her body into crotches containing no nesting material. The material used for this "nest" was very fine and light colored. The male was also seen to carry a small piece of nesting material on two occasions--his twigs were of a larger size.

The flycatchers did not remain in the shelterbelt the entire time I watched but were also seen in open areas, flycatching from fence posts. Say's Phoebes were also in the vicinity, similarly flycatching. Other species seen in the shelterbelt were migrating Tennessee Warbler, Yellow-rumped Warbler (both races), Orange-crowned Warbler, Black-and-White Warbler, and Yellow Warbler. The Vermilion Flycatchers could be observed for as long as one wished, and I saw them again May 2.

During the first part of June, the Davidsons noticed that the flimsy nesting material had vanished from the crotch in the shelterbelt Chinese Elm. They then found a bona fide nest in a 30 foot Chinese Elm tree about 20 feet from the SE corner of their house. The well-concealed nest was about 10 feet high in a crotch and was constructed of soft, light-colored material lining the nest, bigger strips on the outside, and fastened to a branch in only one place. Both birds chased other birds away from the vicinity, even a Western Kingbird. The male fed the female on the nest but the female would also leave the nest to feed. Two eggs were first noticed June 7 and

were creamy colored with brownish spots. The young hatched June 12 and were colored very much like the eggs. At least nine Colorado birders and wildlife specialists came to the Davidson farm to see the nesting Vermilion Flycatchers.

On Jule 13, tragedy struck in the form of a hailstorm which began about 9:50 p.m. and continued until about 10:20 p.m. intermittently from small soft hail to medium marble-sized hail. The next morning, visiting birders inspected the nest and found the young were dead and the female was found dead, her body caught in a crotch below the nest. It was theorized that the young probably died from becoming chilled as their bodies did not show signs of being battered (they had grown considerably in their not quite two days of life). The female seemed to have a broken neck and a crushed head. The male was seen by the Davidsons as usual in the days following the storm and was observed to investigate the nest site repeatedly. He was last seen June 21, 1981. The first Colorado Vermilion Flycatcher nest, the nestlings, and female are now in the Denver Museum of Natural History.

VERMILION FLYCATCHER photograph by Terry Root of Eldorado Springs

THE CFO LATILONG #3 (NORTH PARK) TRIP 16-17 MAY 1981

by Charles Chase
Denver Museum of Natural History, City Park, Denver, CO 80205

Seventeen intrepid observers braved constant rain and snow in North Park and were able to compile 111 species and one hybrid including 3 Latilong changes. The most productive areas were near the reservoirs since few deciduous (willows/aspen) trees had leafed out yet. The hybrid was a very beautiful Cinnamon/Blue-winged Teal which was found by Ron Ryder at the National Refuge. The bird had the body of a Cinnamon Teal and the head of a Blue-winged Teal. On Sunday, Dave Palmer found one egg in a Boreal Owl nest on Cameron Pass!!! This is the first confirmed nesting in Colorado of this rare northern owl. Other highlights included: courting and dancing Eared, Western and Pied-billed Grebes, many dark phase variations of Swainson's Hawk, and large flocks of Savannah, Vesper, Chipping and Lark Sparrows. Harold Holt photographed a possible Sharp-tailed Sparrow and the Records Committee is reviewing this report.

Leaders: Charles Chase, Steve Bissell
Participants: Peg Abbott, Lorraine Chappel, Jim Dingman, Patty Echelmeyer, Timms Fowler, Harold and Lavona Holt, Jan and Frank Justice, Karen Kloverstrom, Ron Ryder, Mary Jane Schock, Helen Stiles-Wainwright, Steve Vaughan and Mary Kay Waddington.

Species observed

Eared Grebe
Western Grebe
Pied-billed Grebe
Great Blue Heron
Snowy Egret
Black-crowned Night Heron
White-faced Ibis
Canada Goose
Mallard
Gadwall
Pintail
Green-winged Teal
Blue-winged Teal
Cinnamon Teal
Blue-winged/Cinnamon Hybrid
American Wigeon
Northern Shoveler
Redhead
Ring-necked Duck
Canvasback
Greater Scaup
Lesser Scaup
Common Goldeneye
Bufflehead
Ruddy Duck
Common Merganser
Goshawk
Red-tailed Hawk
Swainson's Hawk
Golden Eagle
Northern Harrier
Osprey
Prairie Falcon
American Kestrel
Sage Grouse
Sora
American Coot
Killdeer
Common Snipe
Long-billed Curlew
Spotted Sandpiper
Willet
Lesser Yellowlegs
Pectoral Sandpiper (New M)
Long-billed Dowitcher
Marbled Godwit
American Avocet
Black-necked Stilt

Wilson's Phalarope
Northern Phalarope
Herring Gull
California Gull
Ring-billed Gull
Franklin's Gull
Bonaparte's Gull
Forster's Tern
Black Tern
Rock Dove
Mourning Dove
Boreal Owl (Change b to B)
Broad-tailed Hummingbird
Belted Kingfisher
Common Flicker
Yellow-bellied Sapsucker
Downy Woodpecker
Horned Lark
Violet-green Swallow
Tree Swallow
Bank Swallow
Rough-winged Swallow
Barn Swallow
Cliff Swallow
Gray Jay
Steller's Jay
Black-billed Magpie
Common Raven
Common Crow
Mountain Chickadee
Dipper
Long-billed Marsh Wren
Sage Thrasher
American Robin
Mountain Bluebird
Townsend's Solitaire
Ruby-crowned Kinglet
Water Pipit
Loggerhead Shrike
Starling
Orange-crowned Warbler
Yellow-rumped Warbler
MacGillivray's Warbler
House Sparrow
Western Meadowlark
Yellow-headed Blackbird
Red-winged Blackbird
Brewer's Blackbird
Common Grackle
Brown-headed Cowbird
Cassin's Finch
House Finch
Brown-capped Rosy Finch
Pine Siskin
Green-tailed Towhee
Savannah Sparrow
Sharp-tailed Sparrow (poss.new A)
Vesper Sparrow
Lark Sparrow
Gray-headed Junco
Chipping Sparrow
Brewer's Sparrow
White-crowned Sparrow
Song Sparrow

BIRD TRIPS TO LATILONG BLOCK 13
APRIL 15-18 AND MAY 8-10, 1981

by Jan and Frank Justice
1917 South Quitman, Denver, CO 80219

Note from the Editors

Jan and Frank Justice, who are members of both CFO and DFO, provided information which allowed for more Latilong updates than any other amateur birdwatchers in 1981. For this effort they were awarded prints of African birds at the annual CFO convention. The field notes from two of their trips to Latilong 13 follow. We believe that they will provide site guides to the better birding areas in Latilong 13 and also, hopefully, a model for gathering data to update the Latilong study. Any updates should be sent to the Denver Museum of Natural History. Please include birds that are listed as accidental. Particular species may actually be migratory but reports are so few that the Latilong only lists them as accidental.

Most Productive Sites:

Site 1: 5 miles north of River Bend, Elbert Co. It consists of a north and west facing rocky ridge covered by juniper trees with a spring-fed stock tank. (This is Smiley property.)

Site 2: 6 miles north of Limon on Hwy. 71, Lincoln Co. There are two small stock ponds in a grazed pasture east of the highway. (Most of the diving ducks were consistently found on the most northerly pond.) Included also in this site was the area where the Arikaree River crosses the highway 2 to 3 miles farther north.

Site 3: 7 miles east of Lindon on Hwy. 36, Washington Co. There was a shallow, probably impermanent pond on the north side of the highway.

Site 4: 5.3 miles southeast of Limon along Hwy. 287, Lincoln Co. Big Sandy Creek runs through this lightly grazed area. Nearby is a pond, medium-sized cottonwoods, and four miles of sandy road continuing south from the pond. (This is the Earl Forstall Ranch.)

Site 5: Immediate town area of Limon, Lincoln Co., including the slough which crosses Main St., the cemetery, railroad depot area, cattle feed lots, town dump and sewage lagoon on the south edge of town. There are many deciduous trees which are mainly elms, and a few evergreens.

Site 6: A 5-mile section of the Big Sandy Creek just south and west of River Bend. The habitat consists of medium and small sized cottonwoods, and some brush, along with several small ponds and pot holes.

SPECIES LIST

Explanations:

* Habitat change (changes underlined)
** Species new for Block 13
TNTC Too numerous to count
Other sites: see notes at end of species list

Species	Total	Sites	Habitat
Eared Grebe	5	3,4,5	L
**Pied-billed Grebe	1	2	L
Great Blue Heron	2	4,6	R
*Mallard	113	2,3,4,5,6	L,St
Gadwall	3	2	L
*Common Pintail	35	2,3,4,5,6	L,St
**Green-winged Teal	30	2,3,4,6	L,St
*Blue-winged Teal	62	2,3,4,5,6	L,St,Ms
**American Wigeon	10	2	L
**Northern Shoveler	48	2,3,5	L
**Redhead	6	2,5	L
**Canvasback	6	2	L
**Lesser Scaup	33	2	L
**Bufflehead	2	2	L
**Ruddy Duck	1	4	L
**Sharp-shinned Hawk	1	4	R
**Cooper's Hawk	1	5	U
Red-tailed Hawk	8	4,6	R
Swainson's Hawk	20	4,6,other	Cr R,GL
*Rough-legged Hawk	8	3,other	Cr,GL
*Ferruginous Hawk	2	6	R
Golden Eagle	1	other	GL
Northern Harrier	5	4,other	Cr,R
*American Kestrel	26	4,5,6	U,R
American Coot	16	3,5	L
American Avocet	5	3,5	L
*Killdeer	73	2,3,4,5,6	GL,Ag,Aq, R,U
Mountain Plover	1	4	Cr
Spotted Sandpiper	7	2,5	L
Greater Yellowlegs	5	2,3	L
Lesser Yellowlegs	4	2,3	L
**Sanderling	1	3	L
**Semipalmated Sandpiper	6	3	L
Western Sandpiper	15	3	L
Baird's Sandpiper	25	3,5	L
Wilson's Phalarope	68	2,3,4,5	L
**Bonaparte's Gull	1	3	L
Rock Dove	87	5,6,other bridges	U,Ag
*Mourning Dove	243	1,2,3,4,5,6	PJ,GL,Ag,U
Barn Owl	1	other	Sb

Species	Total	Sites	Habitat
*Great Horned Owl	8	3,4,6,other	Sb,R
Burrowing Owl	1	4	GL
Common Flicker	26	4,5,6	R,U
Red-headed Woodpecker	8	4,5,6	R
*Downy Woodpecker	5	4,5	R,U
*Western Kingbird	62	2,3,4,5,6	Ag,R,U,GL
Cassin's Kingbird	1	6	Ag
*Say's Phoebe	14	2,5,6	U,Ag,GL
*Horned Lark	TNTC	2,3,4,5,6	GL,Ag
Rough-winged Swallow	2	5	R
*Barn Swallow	46	2,3,4,5,6	R,U,Ag
Cliff Swallow	26	6	Underpasses
Blue Jay	4	5,6	R,U
Black-billed Magpie	3	6,other	R,Ag
*American Crow	3	1	PJ
**Mountain Chickadee	6	1	PJ
*House Wren	8	5,6	R
Rock Wren	6	1,5,6	Sg
*Northern Mockingbird	3	2,6	R,Sb
Brown Thrasher	4	4,6	R
*American Robin	96	1,2,4,5,6	PJ,Ag,R,U, Sb
Swainson's Thrush	9	3,4,6	R
**Gray-cheeked Thrush	1	6	R
Mountain Bluebird	4	2	Ag,GL
Townsend's Solitaire	15	1	PJ
*Water Pipit	5	3	L
**Cedar Waxwing	25	5	U
*Loggerhead Shrike	20	2,4,6	Ag,R,Sb
*European Starling	125	2,4,5,6	R,Sb,U,Ag
**Solitary Vireo	2	6	R
**Black and White Warbler	1	4	R
**Orange-crowned Warbler	6	5,6	R,U
*Yellow Warbler	8	2,5,6	R,U,Sb
*Yellow-rumped Warbler	11	1,5,6	R,PJ,U
**Northern Waterthrush	2	5	Ms,U
*Common Yellowthroat	6	4,5,6	R,Ms,U
Wilson's Warbler	1	6	R
American Redstart	1	6	R
*House Sparrow	170	5,6	Ag,U,Sb
**Eastern Meadowlark	1	other	GL
*Western Meadowlark	TNTC	all	PJ,GL,Cr, U
Yellow-headed Blackbird	11	3,5	Ag,Ms
Red-winged Blackbird	210	all	GL,Ms,R, U,Ag
Northern Oriole (Bullock's)	2	6	R
Brewer's Blackbird	165	5,6	Ag
Common Grackle	230	all	U,R,Ag
*Brown-headed Cowbird	23	4,5,6	Ag,R,U
*House Finch	62	5,6	R,U,Sb
**American Goldfinch	69	5,6	U,R

Species	Total	Sites	Habitat
Green-tailed Towhee	1	6	R
Rufous-sided Towhee	1	6	R
Lark Bunting	275	2,3,4,6	GL,Ag
Vesper Sparrow	86	4,6	GL
*Lark Sparrow	76	4,5,6	GL,R,S
*Chipping Sparrow	347	all	Ag,R,Sb,GL,U
*Clay-colored Sparrow	24	6	U,R,GL,Ag
*White-crowned Sparrow	16	4,5,6	R,Sb,U
**Lincoln's Sparrow	2	5	U,Ms
McCown's Longspur	2	other	Sg

Other sites and information: Kinney Lake and the surrounding area were not included in this report because the General Highway Map Lincoln County, Colorado, 1963, indicates that Kinney Lake is nearly two miles south of 39°N latitude.

The reported buteos and harriers were also observed at grass and cropland sites throughout the Latilong block. Rough-legged Hawks were especially notable along Hwy. 36 east of Last Chance. A Red-tailed Hawk was found nesting.

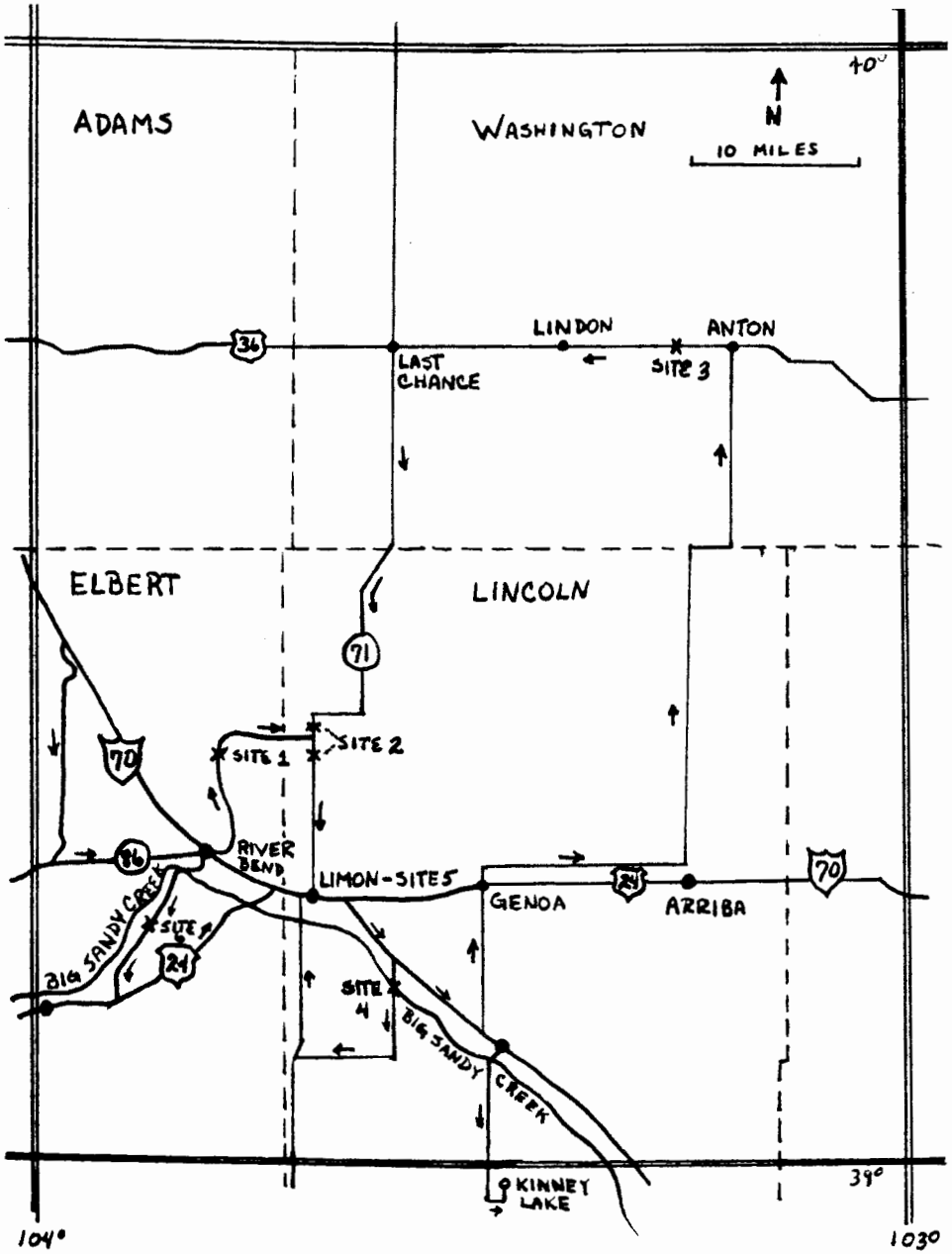
A sub-adult Golden Eagle was seen 10 miles south of Agate. A Barn Owl was found in a dilapidated adobe shed about 3 miles east of Genoa.

Great Horned Owls were found on nests at site 4 and in a solitary small tree one mile east of Last Chance on Hwy. 36. They were also observed perched near abandoned farms in eastern Lincoln Co.

The McCown's Longspurs and Eastern Meadowlark (details submitted to the Records Committee) were seen along the Lincoln/Washington County line road south of Anton.

Summary

A total of 99 species were seen in Latilong 13 during the two trips. 24 of these were new species for Latilong block 13. The status of the Loggerhead Shrike should be changed to B as two nests were found on the May trip. There were 34 habitat code additions.


ADAMS
WASHINGTON
N
10 MILES
40°
LINDON
ANTON
LAST CHANCE
SITE 3
36
ELBERT
LINCOLN
71
70
SITE 1
SITE 2
RIVER BEND
LIMON-SITE 5
GENOA
ARRIBA
24
BIG SANDY CREEK
SITE 6
SITE 4
KINNEY LAKE
39°
104°
103°

PROCEEDINGS OF THE 1981 ANNUAL CONVENTION

by Peter Gent
55 South 35th Street, Boulder, CO 80303

The nineteenth annual convention of the Colorado Field Ornithologists was held at the YMCA of the Rockies in Estes Park on 26-28 June 1981. It was a joint meeting with the Western Field Ornithologists and many of the well over 100 participants were from out of state, especially from California. After a morning's birdwatching in Rocky Mountain National Park on Saturday, 27 June, Bruce Webb introduced the following speakers and papers:

Ronald Ryder and David Palmer, Department of Fishery and Wildlife Biology, CSU, Ft. Collins
Distribution and status of the Boreal Owl in Western North America

Walter Graul, Director of Non-Game Wildlife, Colorado Division of Wildlife, Ft. Collins
South Platte Vertebrate Community

Steve Sherrod, Peregrine Fund West, Ft. Collins
Reintroduction of Peregrine Falcons

Richard Hoffman, Colorado Division of Wildlife, Ft. Collins
Blue Grouse Investigations in Colorado

Douglas Inkley, Wyoming Cooperative Fisheries and Wildlife Research Unit, Laramie and Robert Andrews, U.S. Fish and Wildlife Service, Denver
Patterns of Bird Distribution and Species Richness in Colorado

William Clark, Director, Raptor Information Center, National Wildlife Federation, Washington, D.C.
Flight Identification of North American Accipiters and Common Buteos

Tim Manolis, Department of EPO Biology, University of Colorado, Boulder
Identification of Longspurs

After the banquet, business meetings for the WFO and CFO were held. The following were elected to service with the Colorado Field Ornithologists: President, Timms Fowler; Vice President, Betsy Webb; Treasurer, Frank Justice; Directors for three years Steven Bissell and Elva Fox, for one year to replace Betsy Webb, Kevin Cook. The post of Secretary was left unfilled at that time but a new secretary is being sought. This year's awards for the most new contributions to the Latilong Study were: Amateur, Jan and Frank Justice for their work in Latilong 13 (see this issue); Professional, Marc Bosch. The Durango Bird Club was also commended for its more than 150 Latilong changes in

blocks 22 and 23. The winners in the CFO Annual Photography Contest were: First, Paul Gorenzel for his picture of a Black-crowned Night Heron (see cover); Second, James Sedgwick for his picture of a Lazuli Bunting; Third, Bill Ervin for his picture of an Upland Sandpiper. David Palmer's picture of a Boreal Owl received an honorable mention. Finally, Jeanne Conry and Bruce Webb were given a print of Narca Moore's for all their work in organizing the convention. The banquet address was given by Bill Ervin of the Department of EPO Biology, University of Colorado, Boulder, and was entitled; An Introduction to the Pawnee National Grasslands--Prairie Images and the Function of Song Flight in Lark Buntings. Bill won an award for the best student paper at the recent Cooper Ornithological meeting at Lake Tahoe, California, for this talk.

On Sunday, 28 June, there was a field trip to the Pawnee National Grasslands. Highlights were Black-necked Stilts with young near Windsor, Chestnut-collared and McCown's Longspurs including nests, and several Mountain Plovers with young. On Monday and Tuesday, 29, 30 June, 16 Californians and two Coloradans continued onto the northeast corner of the state and then Bonny Reservoir. Highlights were an Olivaceous Cormorant (possible third state record) and an adult Yellow-crowned Night Heron at Red Lion State Wildlife area, a Black-billed Cuckoo nest with two young and two eggs at Tamarack Ranch near Crook, Upland Sandpipers with young near Proctor, five young Screech Owls in Foster Grove Campground at Bonny, and nesting Eastern Bluebirds and Brown Thrashers east of the dam.

1980--THE YEAR OF THE CUCKOO

by Hugh Kingery
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Jean Christensen described it as the Year of the Cuckoo--and this observation from the Longmont/Loveland area applied throughout Colorado and Wyoming. The quantity of observations of Yellow-billed Cuckoos during Summer 1980 led to the chart below, which summarizes all reports received by American Birds for Colorado and Wyoming.

Latilong	Location	Date, number, comments	Observer
	PLAINS OBSERVATIONS, NORTH TO SOUTH		
6	Ft. Morgan	1 7/5	JCR
4	Ft. Collins	Unusually common; several road kills	RAR
4	Loveland	1 killed when it hit window	MD
4	Loveland(west)	2 adults, 1-2 immatures all summer	BW
4	Loveland, Chasteens Grove	2	F.A.C.
4	Loveland (SW)	Nest with 2 eggs; 1 fledged	MH
4	Berthoud	1	HR
4	Longmont	1 6/25; 1 7/25	JK, IS
4	Lyons	3 all summer	MG
4	Boulder	1 5/24; 1 6/1-2; 1 6/16	BA,LH,SW
4	Boulder(west)	1, June, off and on to 7/20	LH
4	Boulder(south)	At least 2 pairs all summer	PC
11	Boulder(SE)	1 6/8, off and on through July	H&AW
11	Arvada	1 6/23	KK
11	Lower Bear Creek	3 6/21	D.F.O.
11	Chatfield	3 6/22; 2 6/29	BA,D.F.O.
19	Colorado Springs	Pair arrived 6/15, present through late July; apparently nesting	EW
19	Colorado Springs	One around June/July	MS
19	Fountain, Hanna Ranch	1-2, 6/9, 6/21, 7/27	R&JW
19	Pueblo & vicinity	5-6 pairs	VT
19	Arkansas River	7/26-27	D.F.O.
20	Rocky Ford	2 pairs	VT
21	John Martin Reservoir	1 5/29	BA
21	Lamar	1 5/29	BA
27	Cottonwood Canyon, Baca County	2 5/30	BA

Latilong	Location	Date, number, comments	Observer
		MOUNTAIN RECORDS (counterclockwise)	
4	Estes Park	1 6/7, killed flying into window Second record for RMNP	WR
17	Gunnison	One found dead	KC
16	Montrose	2 6/11	KC
16	Ridgway	1 7/3	JRG
23	Durango	Pair 6/13-8/6; no nest or young found. First Latilong record	EF
24	Rio Grande Wildlife Area, Monte Vista	1 7/18. First Latilong record	KC
		WYOMING	
5	Sheridan	5 6/29; 11 observations of at least 9 different birds; only 10 previous records since 1966. Still present 7/31.	HD
3	Basin	Road kill; also one 6/18	BK
17	Lander	Adults in 2 different places, apparently nesting	BO

In Wyoming, the Black-billed Cuckoos made a strong showing, although Colorado had but one report, one from Boulder June 15 (CH). The following summarizes the Wyoming Black-billed Cuckoo records. The reports are arranged counterclockwise, north to south.

4-5	Sheridan	Several reports by several observers; seen throughout season and all over Sheridan area.	HD,ME
3	Greybull	22 on a roadside count	JM
2	Cody	A pair, 6/4-7/13, one killed by flying into a picture window. First Latilong record	UK
8	Moose	2 6/24	EB
9	Dubois	1 6/16, second record	AW
17	Hudson	6/20-7/31. First latilong record	BK
17	Lander	A couple	BO

OBSERVERS: Bob Andrews, E. Bowman, Pilk Carter, Kevin Cook, Marion Dallamond, Denver Field Ornithologists, Helen Downing, Martha Eads, Foothills Audubon Club, Elva Fox, Mary Griest, J.R. Guadagno, Louise Hering, Mary Hill, Clara Holocher, Julia Kassanchuk, Ursula Kepler, Barb Kersting, Keith Ketner, J. Mebough, Bob Oakleaf, Warner Reeser, Joseph C. Rigli, Harold Robinson, Ronald A. Ryder, Irma Sparks, Mahlon Speers, Van Truan, Helen & Art Wainwright, Susan Ward, Rosie & Jim Watts, Bernice Weldon, Amos Welty, Elinor Wills.

TAXONOMY CLINIC

The Denver Museum of Natural History is presenting the Fourth Annual Taxonomy/Identification Clinic, Saturday, 26 September 1981, 9:00 a.m. - 4:00 p.m. Emphasis of this clinic will be the identification of difficult groups of birds including Willow and Alder Flycatchers as well as other Empidonax flycatchers, non-breeding plumaged shorebirds, and winter gulls. Dr. Allan Phillips, one of the nation's leading taxonomists, will preside. Participants are asked to register by phone (575-3911) or by mail: Denver Museum of Natural History, Zoological Collections, City Park, Denver, CO 80205, Attn: Charles Chase. When registering, please submit requests for material that you would like to see covered. Only 25 spaces are available, so register early! The cost of the clinic is $5 which covers expenses and includes receiving a transcript of the clinic.

C.F.O. FIELD TRIPS AND EVENTS

Saturday, 12 September. South of Durango in a "desert like" area (Bondad Rd. and Bodo Rd). Leader Elva Fox (H) 247-5890. Meet at 7:30 a.m. at 53 Rio Vista Circle, Durango for this all day trip.

Saturday, 19 September. DeWeese Reservoir, Westcliffe. Leader Marc Bosch (H) 545-7393. Meet either at 7:30 a.m. at McDonalds, I-25 and Hwy. 50 West in Pueblo or at 8:30 a.m. at DeWeese Reservoir for this all day trip.

Sunday, 20 September. Hawk Watch at Table Mountain, north of Boulder. Leader Freeman Hall (H) 444-1453. Meet at 9:00 a.m. at the Basemar Shopping Center, Baseline and Broadway in Boulder.

Saturday, 26 September. Dr. Allan Phillips' Taxonomy Clinic at the Denver Museum of Natural History, 9 a.m. - 4 p.m. (See above.)

Saturday, 3 October. Bonny Reservoir for Fall Migrants. Leader Peter Gent (H) 494-1750. Meet at 8:00 a.m. at the Wagon Wheel Campground on the south side of Bonny Reservoir for this all day trip. Last year two Barn Owls, two Black-throated Green Warblers and a Field Sparrow were seen on this trip.

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