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THE 1982 ANNUAL MEETING

The twentieth annual meeting of the Society will be held in Albuquerque on 6-7 March 1982. A special emphasis of this meeting will be a banquet honoring the founders, past presidents, and honorary life members of the Society. The business and paper sessions will be held at the University of New Mexico, Department of Biology, Room 139. The identification workshop will be in the bird range portion of the Museum of Southwestern Biology, in the basement of the biology building. The happy hour will be in the Canterbury Center, the banquet in the Student Union Building, and the feature address back in the biology building. Exact locations will be announced at the meeting. The schedule of events for 6 March is as follows:

8:30 AM - 5:00 PM	Registration
8:30 AM - 9:00 AM	Slide Show
9:00 AM - 9:30 AM	Business meeting, including election of directors
9:30 AM - 9:45 AM	Break
9:45 AM - 12:00 N	Paper Session
12:00 N - 1:30 PM	Lunch (price \$2.00)
1:30 PM - 5:00 PM	Identification Workshop
5:00 PM - 6:30 PM	No-host happy hour
6:30 PM - 8:00 PM	Banquet (price \$7.00)
8:15 PM -	Address by Dale Zimmerman

On 7 March there will be a field trip to Bosque del Apache National Wildlife Refuge and possibly another trip to an area nearer Albuquerque. Details will be announced at the meeting.

The nominating committee of Ross Teuber, Mary Lou Arthur and Mary Alice Root proposes Donna Schmitt and Bo West as candidates for Director-at-large. The terms of other offices continue for another year.

FROM THE EDITOR

With this number I assume the editorship of the NMOS Bulletin. I want to express my personal thanks and those of the Society to John Hubbard, who has labored in this position for the past five years. Under his guidance the journal has evolved into its present form, with its emphasis on reports of research and field observations. I hope to continue progress in that direction.

John's contribution to our understanding of the distribution of New Mexican birds is unsurpassed, even by the work of Florence Bailey and J. S. Ligon, although of course he has built on the foundation laid by those and other pioneering ornithologists. His careful and extensive fieldwork sets a standard of excellence and dedication to which we should all aspire in our own efforts, and his unstinting contribution in reviewing and organizing the data of other observers, against the background of an encyclopedic knowledge of what has been recorded before, gives New Mexico a system of reporting on avian distribution which is truly the envy of all other states. John's commitment to the conservation of endangered species in our state was recently recognized by the Nature Conservancy in the form of a Leopold Conservation Award. During the last decade our knowledge of New Mexican birds has grown enormously. We can only hope that John's leadership and example of thorough field work and analysis will be with us for decades to come.

In beginning, I want to emphasize that the NMOS is an ornithological society. While we all enjoy watching birds, that pleasurable activity does nothing for the subjects of our attention and affection. If we really care about birds a step in their behalf is to become involved in the conservation or serious study of them. The latter is the bailiwick of the NMOS. I encourage all bird-watchers in the Society to take careful notes of the birds they observe in an attempt to better understand their biology. A novice at identification can contribute useful and interesting information on the behavior of easily identified species by watching carefully and extensively and taking copious notes. I am prepared to help anyone get a report of such observations into publishable form, providing they are of sufficient ornithological interest.

I encourage ornithologists working in the state to be more forthcoming with submissions to the Bulletin. Some general notes which are not placeable in national journals will find a welcome home here. I also solicit longer papers, including those deriving from thesis projects. Papers published here should receive wider dissemination in the future, as one of my major objectives is to expand the professional readership of the Bulletin, through expanded circulation and abstracting.

As the quantity of ornithological knowledge burgeons it becomes increasingly impractical for national journals to publish short notes on distribution. State journals are the proper places for such reports (see Robertson 1980, *Amer. Birds* 34:873), and I hope authors of notes on first or significant nesting attempts in New Mexico and of analyses of distribution will submit them to the Bulletin. Several such papers appear in this number.

My emphasis as Editor will be on improving the quality of the Bulletin rather than in changing its format and appearance. I am satisfied with our present means of reproduction. Indeed, before we change to a spiffier format we should be sure we have the quality to justify it. This is not always the case with some of the state journals fancier than ours. Toward that end, I hope you will deluge me with manuscripts. My address is Route 2, Box 3, Thoreau, NM 87323.

--Arch McCallum

A POSSIBLE BREEDING RECORD OF THE WHITE-WINGED CROSSBILL IN NEW MEXICO

Roger F. Pasquier
International Council for Bird Preservation
Smithsonian Institution
Washington, DC 20560

John W. Perkins
General Delivery
Ranchos de Taos, NM 87557

The normal breeding range of the White-winged Crossbill (Loxia leucoptera) in western North America extends south to Washington, northeastern Oregon, and western Montana, with an isolated population in northern Utah, according to the most recent review (American Ornithologists' Union in prep., Check-list of North American birds, sixth ed.). In New Mexico, Hubbard (1978, Revised check-list of the birds of New Mexico, New Mexico Ornithol. Soc. Publ. No. 6) described the species as "casual in migration and winter in the extreme northeast and Sandia Mountains."

On 20 September 1981 we saw a pair of White-winged Crossbills attending a young bird in the Wheeler Peak Wilderness of the Carson National Forest, Taos County (36°35'N. 105°25'W). The birds were in a mixed stand of subalpine fir (Abies lasiocarpa) and Engelmann spruce (Picea engelmannii), at an elevation of approximately 3600 m (11,800 ft) in the upper headwaters of the Middle Fork of the Red River, below La Cal Basin, near the Twining/Blue Lake Trail. This grove was the highest-ranging stand of trees on the mountain.

Our attention was drawn by the begging calls of the young crossbill high in a tree. The young bird was soon joined by a pair of adults, which perched on each side of it on the same branch. The female fed the young bird, which was decidedly smaller than the adults. The black wings with white wing bars on both adults, the red body of the male, and the green body of the female were all clearly visible. The young bird was more heavily-streaked than the female. The senior author is familiar with this species, and the Red Crossbill (Loxia curvirostra), from Mount Desert Island, Maine, where both species breed.

Two Pine Grosbeaks (Pinicola enucleator) were foraging on the ground in the grove where we found the White-winged Crossbills. A few flocks, each comprised of about 10 Red Crossbills, which were distinguished by their all-dark appearance and different call-notes, were seen that day flying over coniferous forest at lower elevations.

FIRST CONFIRMED NESTING OF THE WILSON'S PHALAROPE IN NEW MEXICO

D. Archibald McCallum
Cottonwood Gulch Foundation
Route 2, Box 3
Thoreau, NM 87323

The Wilson's Phalarope (Steganopus tricolor) formerly bred from British Columbia east to Ontario and south to Utah and Colorado (American Ornithologists' Union 1957, Check-list of North American birds, fifth ed., Baltimore, Amer. Ornithol. Union). In the past decade it has expanded its breeding range explosively in all directions (Robertson 1980, Amer. Birds 34:872), including southward into Texas, New Mexico, and Arizona. New Mexico's first, and so far only, confirmed record of breeding was obtained on 30 June 1980 when a downy chick was found near Bluewater Lake in McKinley County.

The site of the breeding attempt seems improbable. It was at an elevation of 2250 m (7400 ft) in Las Tusas Valley, in the Zuni, Mountains. The chick

was found, by Brian Malcolm, in grasses about 20 cm tall near the head of the lake, a reservoir whose year-to-year variation in water level frequently leaves its shoreline far from the site. Exceptionally heavy run-off in 1980 not only brought the lake to its maximum capacity, it made a virtual marsh of the meadow in which the young bird was later found. However, no more than 65 ha of meadowland were available for use by the phalaropes. The rest of the valley floor supports shrub associations dominated by rubber rabbitbrush (Chrysothamnus nauseosus) and grasslands dominated by blue grama (Bouteloua gracilis).

At least 3 adult male phalaropes were present throughout June in these meadowlands. These birds typically flew circular paths around observers and uttered low-frequency "woop" notes ("Alarm Flight" of Hohn 1967, Auk 84:245-259) when observers ventured into the areas they occupied. It was a search in an area defined by one of these flight-patterns that led to the discovery of the chick. Similar behavior of males away from the discovery-site suggested that other chicks or nests were present.

Because of the unusually wet conditions in 1980 it seemed possible that nesting in Las Tusas Valley would be a one-year phenomenon. However, on 22 June 1981 I flushed an adult male phalarope from the same meadow in which the chick was found in 1980. The bird burst from the ground on my right, flew in front of me, and landed on my left about 5 m away. He flapped his wings in a helpless-looking manner and gave calls I have heard at no other time. I did not move. The male then took flight and executed the typical "Alarm Flight." No nest was found in a careful search on that date or in a subsequent search. Hohn (1967) described a "distraction display" very similar to the behavior I observed given by a male incubating 4 eggs. He also witnessed less extreme forms of that display when eggs or young were present. It thus seems highly likely that nesting was at least attempted at the Las Tusas site again in 1981.

The Wilson's Phalarope has increased in abundance as a summer visitor to New Mexico in the past decade (Hubbard 1978, Revised check-list of the birds of New Mexico, New Mexico Ornithol. Soc. Publ. No. 6). It has been recorded as a regular late-summer visitor to the shores of Bluewater Lake at least since 1975, but the meadowland in which the chick was found was not investigated before 1980. Whether the species continues to nest in this locality may depend upon water levels and grazing practices. If the meadows, which are now used as hayfields, are converted to pasture suitable nest-sites may no longer be available. Only time and continued observation will provide an answer to this significant question.

**A NEW BREEDING POPULATION OF SAVANNAH SPARROWS WITH A FIRST NEST
FOR NEW MEXICO**

D. Archibald McCallum
Cottonwood Gulch Foundation
Route 2, Box 3
Thoreau, NM 87323

The Savannah Sparrow (Passerculus sandwichensis), which breeds sporadically in sparse graminoids near water from northern Alaska south to Guatemala (A.O.U. 1957), has been known to summer in northern New Mexico since at least 1904 (Bailey 1928), but no nest nor young have been found and no summer population has been known from outside the northern highlands of the state (Hubbard 1978). Thus the status of the species was revised doubly when a nest was found on 30 June 1980 in a newly-discovered population near Bluewater Lake, in McKinley County.

The population occupied a meadowland near the upper end of the lake, at an elevation of 2250 m (7400 ft), in Las Tusas Valley, in the Zuni Mountains.

The meadows were inundated by an exceptionally high spring run-off from February through May. When I first visited them on 3 May the ground was soggy, but the grass had been cropped to within a few cm of the ground by cattle. Savannah Sparrows were first seen on 20 May, when males sang vigorously and engaged in seeming territorial chases. The birds were seen again on 2 and 17 June, and a search for nests was organized at the end of that month. The nest was found by Tisi Lord, Robin Bingham, and Brian Malcolm when a sitting bird was flushed almost under foot. According to the literature such a stroke of luck is the surest way to find a nest, for the birds usually arrive and depart on foot, whether incubating or feeding. The grass in the field in which the nest was found never exceeded a height of 10 cm, although the foliage and stems of the abundant wild iris (Iris missouriensis) rose to 40 cm. Males were singing from iris stems as late as 6 August, suggesting that they might be polygynous or double-brooded.

The nest was a compact cup, tightly woven of dried grasses. It was placed at ground level and was completely hidden by the fresh and dry culms and leaves which rose above it. Two eggs were present on 30 June; 4 on 5 July. The nest was not checked after that date.

Perhaps more interesting than the finding of this first nest is the mere presence of a summer population of Savannah Sparrow in Las Tusas Valley. The type of meadowland in which the birds were found occupies less than 65 ha in a valley otherwise dominated by rubber rabbitbrush (Chrysothamnus nauseosus) and blue grama (Bouteloua gracilis). Mean annual precipitation is about 40 cm (16 in) and in some years the shoreline of the lake may be up to 3 km below the site, which is under such circumstances far from moist.

Much more extensive meadowlands occur elsewhere in New Mexico south of the northern highlands, notably in the Mogollon and Capitan highlands, but despite rather good coverage no southern population has been found. Arizona's only known breeding population is near Springerville in the moist country at the foot of the Mogollon Rim (Monson and Phillips 1981).

It appears from the literature that the Savannah Sparrow is quite sporadic in occurrence throughout the supra-littoral West. Not only is its habitat uncommon, but it spurns many seemingly appropriate sites while nesting densely in others. This phenomenon was observed in a survey of the breeding birds of the Zuni Mountains in 1981, at which time and place several suitable-looking sites were not occupied. The closely-related Grasshopper Sparrow (Ammodramus savannarum) shows the same pattern in dry rather than moist grassland. Thus the tendency to form loose colonies may inhibit dispersal and contribute to the uneven filling of suitable sites when dispersal occurs.

Perhaps the most important consideration is the longevity of colonies. Savannah Sparrows have been found at Burford Lake in northern New Mexico before and after dry years (Wetmore 1920, Huey and Travis 1961). It is not known whether these observations represent recolonization or persistence of a single population, but the sporadic distribution of the species suggests the latter. The site at Bluewater Lake was not visited before 1980, so the year of establishment of its population is unknown. However, 6 to 10 males sang in the same site in 1981 as early as 30 April. While I might have overlooked Savannah Sparrows on 3 May 1980 they were conspicuous when I first saw them. It is at least possible that migrating birds keyed on the very wet meadows in 1980 and that 1980 was the first year of the colony. The following year was much drier, but the meadows were flooded for a short time. In especially dry years no run-off occurs. Further observation of this variable breeding site may shed some light on habitat selection in the Savannah Sparrow, specifically the temporal distribution and quantity of water required for onset of territoriality. If Brewer and Harrison (1975) were correct that habitat selection is more likely to occur in late summer or autumn than in spring locally-raised Savannah Sparrows could imprint on these meadows when

they are green from late-summer rain but have no surface water. If that is the case the population could persist for some time.

The birds appeared through binoculars to be dark with well-defined streaks on the underparts. They are similar in this respect to other Savannah Sparrows summering in New Mexico and Arizona. Duvall (1943) and later Phillips et al. (1964) considered these populations to belong to P.s.rufofuscus, the Mexican Highlands subspecies. More recently Hubbard (1974) showed that these Southwestern birds are more similar to the Great Basin form, P.s.nevadensis. Monson and Phillips (1981) however, have not changed their opinion of the name of Arizona's breeding Savannah Sparrows.

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BANDING RESULTS AT CANDELARIA FARMS, 1980-1981

C.A. Hundertmark
223 Morningside NE,
Albuquerque, NM 87108

INTRODUCTION

From the fall of 1980 through the spring of 1981 I continued banding operations at Candelaria Farms, Albuquerque, New Mexico. Along with a group of other volunteers, I initiated the Candelaria Farms banding project in September 1979. The initial objective of the project was to obtain baseline data on winter and migrating bird populations before development of a nature center on the site. When the nature center begins operating in 1982 the operations will probably alter those populations to some degree. Through the banding project I expect to monitor those changes. The project will also provide a data base for development of nature-center programs. The basic data we are seeking initially are the species, age, and sex composition of wintering and migrant passerine populations. During the 1980-1991 banding cycle we modified our procedures somewhat on the basis of results of the 1979-1980 operation.

METHODS

The location and habitat-composition of the Candelaria Farms banding project were briefly described by Hundertmark (1981). During 1980-1981 5 days were spent on the south-woodland site and 32 days were spent on the northern

site. Over the course of the banding season 18 volunteers assisted with the project. Because the project was manned by volunteers banding was usually limited to weekends. During peak spring- and fall-migration months we attempted to band at least 1 day each week-end, and 2 days when possible. During November and December we reduced the frequency of field work. From January through March we again operated at a reduced frequency of visits, primarily because of poor results.

Table 1 presents a breakdown of the number of days we banded by season. I considered September and October to be primarily fall-migration months. November is treated separately as a transitional month during which we were banding both migrants and winter birds. From December through March most of the birds we banded were winter residents, while April and May were spring-migration months, though many of the birds netted those months were returning breeding birds.

TABLE 1. Banding days and net-days at Candelaria Farms by season.

Year	Sep-	Nov	Dec-	Apr-	Total
	Oct		Mar	May	
1979-1980 Days	6	4	13	10	33
Net-days	18	18	96	74	206
1980-1981 Days	13	3	9	12	37
Net-days	94	23	65	94	276

We used mist nets to live-trap birds for banding. Table 1 also presents the number of net-days of operation by season. Each net which we set on a particular day represents 1 net-day. Our average number of nets per day was 7.2 during 1980-1981. Usually we began setting nets before dawn. On most days the nets remained up until between 1300 and 1600. Occasionally wind or a poor capture-rate resulted in a shorter day. During 1979-1980 we frequently banded from dawn until dusk. In general, we found that the time after 1300 was not productive.

In aging and sexing birds we used several keys. For many species we used worksheets in the North American Bird-Banding Manual (U.S.F.&W.S. 1977). We also used the Western Bird-Banding Association's Banding Worksheet series (1971-present) and Wood (1969). For identification of Empidonax flycatchers we used Phillips et.al.(1964) and Phillips, Howe, and Lanyon (1966) . During 1980-1981 no attempt was made to age birds by skulling.

RESULTS

During the banding year 559 birds of 45 species were netted or recovered. Of these, 32 were returns or recoveries of birds originally banded during 1979-1980. Total captures are summarized in Table 2 by species and season. Returns and recoveries are summarized in Tables 3 and 4. Tables 3 and 4 include only birds originally banded during the 1979-1980 banding season. Some return birds were netted more than once. These birds are counted only once, on the date of the first recapture.

While the total number of birds netted was higher than the 1979-1980 total (514), the increase was not proportional to the increased effort reflected in additional banding days, additional net-days, and improved net-siting. Major differences occurred in all 3 seasons, fall, winter, and spring. Totals for the fall of 1980 exceeded comparable figures for the preceding year by 5 times. In contrast, the totals for the winter of 1980-1981 were only slightly more than 1/3 of the totals for the previous winter, and totals for the spring of 1981 were also down substantially from those of the previous spring.

During the fall of 1980 we netted 302 birds. This total reflected a more

than 2-fold increase in number of banding days over the fall of 1979 (Table 1). It also reflected an increase from 3 nets/day during the fall of 1979 to an average of 7.23 nets/day during the fall of 1980. Using records of net-site productivity we were able to increase our siting-efficiency, concentrating on sites which were previously most productive. From September into October we also benefited from the attractive effect of a field of standing sorghum. The grain stood tall enough to screen the nets effectively and attracted not only granivorous finches (notably Chipping Sparrows) but also several species of warblers. It is interesting to note, however, that the number of birds/net-day was essentially the same in both fall banding periods.

Fall migrants of interest included our first Gray Flycatcher, banded 20 September; an Ovenbird banded 18 October; a female American Redstart banded 5 October; and 2 Grasshopper Sparrows banded 11 October.

November yielded 16 fewer birds than in the previous year. While this may reflect the difference of 1 less banding day, that day should have been offset by the increased number of nets used and our improved siting. The decrease probably reflected the overall drop in wintering fringillids. Our one unusual November bird was a Slate-colored Junco, banded on 15 November. Continuing the trend observed in November, the winter catch was substantially lower than in the previous year. While the total banding effort during the winter months was 4 days less than during 1979-1980, the decrease in field time was in response to a generally less-productive season. The decrease in productivity is most clearly reflected in the decrease in birds/net-day (2.36 in 1979-1980 compared with 1.31 during 1980-1981). The major difference between the 2 seasons appeared in the agricultural fields. During the winter of 1979-1980 we netted 116 Savannah Sparrows in those fields. The 1980-1981 winter season produced no Savannah Sparrows. Because of the absence of this species we set fewer nets in the fields during the winter months. Periodic visual observation and nets set at key sites along the irrigation ditch, however, confirmed the near or total absence of the species. Also missing from the winter population was the Lincoln's Sparrow, which was present in low numbers through the 1979-1980 winter season. Vesper Sparrows were also absent.

Numbers of Oregon Juncos and White-crowned Sparrows do not differ substantially between the 2 years. However, improved siting of nets should have increased our numbers for both of these species. Visual observation also, suggested declines in the numbers of these species. The one notable exception to the decreased number of winter fringillids showed up in the Song Sparrow population. Just over twice as many of these birds were banded as during the winter of 1979-1980.

Banding results in spring were also down somewhat from spring of 1980, despite 2 more banding days during the spring of 1981. The number of net-days increased from 74 in 1980 to 94 in 1981, a 27% increase. A decline in the number of flycatchers (family Tyrannidae) banded (11 vs. 29) accounted for part of this difference. In addition, either because of the timing of our effort or owing to a more diffuse migration, we seem to have missed a peak comparable to the 16-18 May period in 1980. Highlights of the spring period included our first Downy Woodpecker, on 5 April; a "Traill's" Flycatcher 23 May; a Gray Catbird 23 May; a Prothonotary Warbler 2 May; 2 Myrtle Warblers 2 May; and our second Ovenbird, on 17 May.

The 1980-1981 banding year brought the total number of birds netted at Candelaria Farms to 1041 individuals of 50 species. For 3 of these (Yellow-rumped Warbler, Dark-eyed Junco, and White-crowned Sparrow) at least 2 distinct forms have been banded.

TABLE 2. Birds netted at Candelaria Farms, September 1980 - May 1981, by season

Species	Sep- Oct	Nov	Dec- Mar	Apr- May	1980-81 Total	1979-80 Total
American Kestrel (<u>Falco sparverius</u>)	1				1	1
Mourning Dove (<u>Zenaidura macroura</u>)						5
Screech Owl (<u>Otus asio</u>)			1		1	
Common (Red-shafted) Flicker (<u>Colaptes auratus</u>)	4	2	2		8	10
Downy Woodpecker (<u>Picoides pubescens</u>)				1	1	
Ash-throated Flycatcher (<u>Myiarchus cinerascens</u>)						1
"Traill's" Flycatcher (<u>Empidonax traillii/alnorum</u>)				1	1	
Dusky Flycatcher (<u>Empidonax oberholseri</u>)	1			8	9	22
Gray Flycatcher (<u>Empidonax wrightii</u>)	1				1	
<u>Empidonax</u> sp.						4
Western Wood Pewee (<u>Contopus sordidulus</u>)						2
House Wren (<u>Troglodytes aedon</u>)	2			2	4	4
Bewick's Wren (<u>Thryomanes bewickii</u>)		1			1	2
Gray Catbird (<u>Dumetella carolinensis</u>)				1	1	
American Robin (<u>Turdus migratorius</u>)	11	4	5	29	49	69
Hermit Thrush (<u>Catharus guttatus</u>)	10	2		2	14	14
Blue-gray Gnatcatcher (<u>Poliophtila caerulea</u>)						2
Ruby-crowned Kinglet (<u>Regulus calendula</u>)	5	2	4	1	12	7
Solitary Vireo (<u>Vireo solitarius</u>)	1				1	
Warbling Vireo (<u>Vireo gilvus</u>)	1			1	2	1
Prothonotary Warbler (<u>Protonotaria citrea</u>)				1	1	
Orange-crowned Warbler (<u>Vermivora celata</u>)	7			1	8	2
Virginia's Warbler (<u>Vermivora virginiae</u>)				3	3	
Yellow Warbler (<u>Dendroica petechia</u>)				1	1	2
Yellow-rumped (Myrtle) Warbler (<u>Dendroica c. coronata</u>)				2	2	
Yellow-rumped (Audubon's) Warbler (<u>D. c. auduboni</u>)	1			7	8	3
Overbird (<u>Seiurus aurocapillus</u>)	1			1	2	
MacGillivray's Warbler (<u>Oporornis tolmiei</u>)	6			8	14	13
Common Yellowthroat (<u>Geothlypis trichas</u>)	2				2	
Wilson's Warbler (<u>Wilsonia pusilla</u>)	27			3	30	3
American Redstart (<u>Setophaga ruticilla</u>)	1				1	
Western Meadowlark (<u>Sturnella neglecta</u>)			1		1	9
Red-winged Blackbird (<u>Agelaius phoeniceus</u>)		5			5	1
Western Tanager (<u>Piranga ludoviciana</u>)	3				3	2
Black-headed Grosbeak (<u>Pheucticus melanocephalus</u>)				14	14	10
Blue Grosbeak (<u>Guiraca caerulea</u>)	2				2	3
Indigo Bunting (<u>Passerina cyanea</u>)	1				1	
Lazuli Bunting (<u>Passerina amoena</u>)						3
House Finch (<u>Carpodacus mexicanus</u>)	31	9			40	3
American Goldfinch (<u>Carduelis americana</u>)	3		4		7	
Green-tailed Towhee (<u>Pipilo chlorurus</u>)	12			1	13	3
Rufous-sided Towhee (<u>Pipilo erythrophthalmus</u>)	4		3	2	9	2
Savannah Sparrow (<u>Passerculus sandwichensis</u>)	4			4	8	116
Grasshopper Sparrow (<u>Ammodramus savannarum</u>)	2				2	
Vesper Sparrow (<u>Pooecetes gramineus</u>)	2			4	6	3
Dark-eyed (Slate-colored) Junco (<u>Junco hyemalis</u>)	1				1	
Dark-eyed (Oregon) Junco (<u>Junco hyemalis</u>)	14	22	20		56	75
Gray-headed Junco (<u>Junco caniceps</u>)	2	4	3		9	10
Chipping Sparrow (<u>Spizella passerina</u>)	75				75	10
Brewer's Sparrow (<u>Spizella breweri</u>)	7			1	8	3
White-crowned Sparrow (<u>Zonotrichia leucophrys</u>)	48	8	29	10	95	77
Lincoln's Sparrow (<u>Melospiza lincolni</u>)	6				6	7
Song Sparrow (<u>Melospiza melodia</u>)	4	3	13		20	10
TOTALS, 1980-1981	302	63	85	109	559	-
Birds/Net-day	3.21	2.74	1.31	1.16	2.03	-
TOTALS, 1979-1980	58	79	236	141	-	514
Birds/Net-day	3.22	4.39	2.46	1.91	-	2.50

TABLE 3. 1980-1981 returns and recoveries from 1979-1980 season.

Species	Sep-		Dec-	Apr-	1980-81 Totals
	Oct	Nov	Mar	May	
Common (Red-shafted) Flicker			1		1
White-crowned Sparrow	5	1	5	1	12
Dark-eyed (Oregon) Junco	1	4	2		7
Gray-headed Junco	1		2		3
Song Sparrow	1	2			3
Black-headed Grosbeak				2	2
American Robin	(1)*		2	2	3(1)*
TOTAL	9(1)	5	11	5	31(1)

*This bird was originally banded in May 1980 and is presumed to have been in the area through the summer.

TABLE 4 • Returns as a percentage of banded population

Species	Total banded 1979-80	Number of 1980- 81 returns	%
Common Flicker	9	1	11.1
White-crowned Sparrow	74	12	16.2
Dark-eyed Junco	74	7	9.5
Gray-headed Junco	10	3	30.0
Song Sparrow	10	3	30.0
Black-headed Junco	10	2	20.0
American Robin	67	3	4.5

DISCUSSION

The increase in birds netted during fall reflected our increased field time, more nets, and better siting of nets, as well as the attraction of the standing sorghum. The sorghum field attracted large numbers of House Finches, Chipping Sparrows, and White-crowned Sparrows. More surprisingly, many of the fall warblers we netted were caught flying into the sorghum.

The decline in winter totals reflected the absence of Savannah Sparrows, the most abundant winter species in 1979-1980. The decrease may be attributable to a generally mild winter, allowing birds to remain at more northern latitudes or at higher elevations. Alternatively, it could reflect a low degree of winter site-fidelity in such species as Savannah Sparrows and Lincoln's Sparrows.

Song Sparrows presented the one major exception to the downward trend of wintering passerines. The dramatic increase in number of Song Sparrows netted was directly attributable to the clearing of thickets along a drainage ditch which heads on our banding station. The Song Sparrow population increased dramatically immediately following the clearing of the ditch.

The decrease in totals for spring is more difficult to account for. It may reflect the limitations of our methods or of the site. During the spring of 1980 we hit a 3-day migration peak which accounted for 49% of our spring catch. We had no comparable peak in 1981. This may reflect a more uniform, diffuse migration, or we may have simply missed peaks because of the limitation to week-end banding. The lack of an attractant comparable to the grain fields of fall has tended to keep our totals relatively low during both spring periods. Spring produced the lowest number of birds/net-day both years (Table 2).

CONCLUSIONS

Results for the fall of 1980 indicate that continued effort during that season can contribute substantially to the understanding of fall migration in the Rio Grande Valley. Winter and spring efforts were less productive than during the previous year, suggesting that new methods may be necessary to justify continuation of the effort. Use of traps to supplement mist nets should significantly improve our winter effort. Spring will be a more difficult challenge. When completed, the nature center pond may serve as an attractant to concentrate spring migrants. In addition, the use of canopy nets may enable us to more effectively sample the warbler population in spring and fall. An expansion of our efforts into the weekday period would greatly improve our ability to sample both migration periods.

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SHOREBIRDS AT THE ZUNI INDIAN RESERVATION, SPRING 1981

John Trochet
2021 Middleberry
Sacramento, CA 95815

The spring of 1981 was a surprising one ornithologically at Zuni, and no group was more surprising than shorebirds. Twenty-six species were found in the period 1 March - 2 July, loosely called spring. Ten of these had no precedent on the reservation, and a few of these 10 are rare anywhere in New Mexico. Another 7 species had never been recorded locally outside fall passage. The results of the 77 days of field work in the period strongly suggest that Zuni is worthy of continuing coverage as a migrant trap for these birds. Sightings are summarized in Table 1.

Table 1. Shorebirds observed on Zuni Indian Reservation, spring 1981.

Species	Records
SEMIPALMATED PLOVER.	11 dates from 25 April-18 May. Maximum 9 birds. Biggest movement 4-8 May.
KILLDEER.	71 dates from 1 March-2 July. Scarce in winter. Numbers began building late February . Biggest migratory movement 20 March-9 April. Maximum 120 birds. Fairly common in summer; breeds.
MOUNTAIN PLOVER.	1 bird 22 March.
GOLDEN PLOVER.	1 bird 24-26 June, in alternate plumage.
BLACK-BELLIED PLOVER.	3 dates 5-12 May; maximum 2 birds.
RUDDY TURNSTONE.	1 bird 10 May.
COMMON SNIBE.	16 dates 4 March-25 April. Single bird 19 May. Uncommon in winter. Numbers increased late March-mid-April. Approximately 15 birds took off and circled repeatedly before heading north 13 April.
LONG-BILLED CURLEW.	single birds 2 June and 1 July, at same place.
SPOTTED SANDPIPER.	34 dates 5 April-2 July. Common throughout May, with biggest movement 6-10 May; maximum 60 birds. Uncommon in summer; breeding not documented.
SOLITARY SANDPIPER.	3 dates 5-12 May; maximum 3 birds. Also 2 birds 29 June.
GREATER YELLOWLEGS.	14 dates 22 March-10 May; maximum 7 birds. 5 dates 24-30 June; maximum 9 birds.
LESSER YELLOWLEGS.	15 dates 22 March-20 May; maximum 6 birds. 3 dates 29 June-1 July; maximum 2 birds.
WILLET.	4 dates 25 April-16 May; maximum 18 birds. 4 dates 24 June-1 July; maximum 7 birds.
PECTORAL SANDPIPER.	2 birds on 20 March and 9 April.
BAIRD'S SANDPIPER.	2 dates, 5 April and 9 April; maximum 6 birds. Also 3 dates 29 June-2 July; maximum 8 birds.
LEAST SANDPIPER.	19 dates 20 March-21 May; maximum 20 birds. Movement most marked 5-12 May. 3 birds 2 July.
WESTERN SANDPIPER.	14 dates 9 April-20 May; maximum 9 birds. 1-2 July; maximum 5 birds.
SANDERLING.	4 dates 6-21 May; maximum 4 birds.
SHORT-BILLED DOWITCER.	1 bird 1 July.
LONG-BILLED DOWITCER.	30 dates 20 March-18 May; biggest movement 4-18 May. Maximum estimated 175.
STILT SANDPIPER.	1 bird 12-14 May.
MARbled GODWIT.	1 bird 26 June.
AMERICAN AVOCET.	17 dates 23 March-16 June; maximum 14 birds. Biggest movement 12-20 May.
BLACK-NECKED STILT.	12 dates 18 April-19 May; maximum 9 birds.
WILSON'S PHALAROPE.	37 dates 16 April-2 July; maximum estimated 300 birds. Biggest movement 5-21 May. Uncommon in summer; breeding not documented.
NORTHERN PHALAROPE.	9 dates 13 May-2 June; maximum 15 birds. Biggest movement 13-16 May.

Temporal variations in abundance of the more frequently observed species are depicted in Fig. 1. No field work was done 24-29 March, 19 April-2 May, and 25 May-1 June, inclusive; and visiting observers did not record numbers on 25 April. Data for the quarters overlapping these dates are thus less nearly complete. The increasing numbers of Killdeer in the latter half of June reflect the appearance of young birds.

Table 2 reflects the aforementioned gaps in coverage. It also shows the unexpected appearance 24 June-2 July of a number of species which nest in the Far North. Widespread nesting failure in that region may have prompted early departures, but I suspect that rather large, numbers of these birds wander between breeding and nesting grounds at this season, when few observers are

seeking them.

Table 2. Number of species of shorebirds observed on Zuni Reservation, spring 1981, by quarter-month.

March				April				May				June			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
2	2	8	5	8	12	6	8	15	18	13	4	6	4	3	14

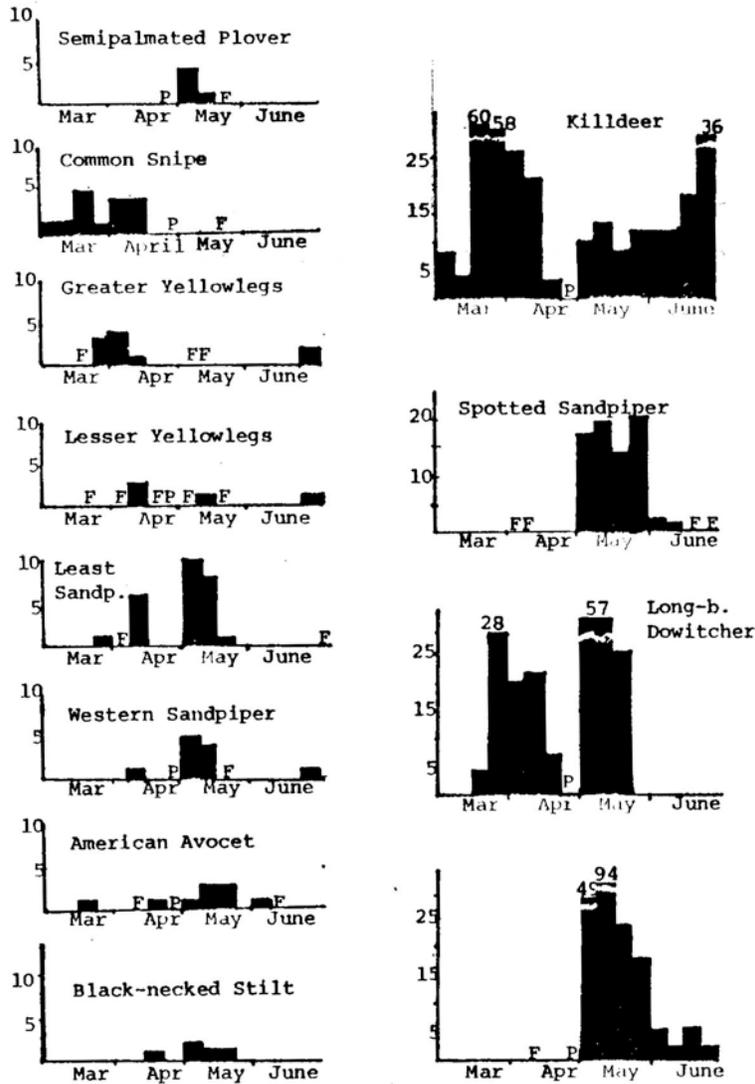


Fig. 1. Abundance of species recorded on 10 or more dates. Months are divided into quarters, as follows: first days 1-8, second days 9-16, third = 17-23, fourth day 24-end of month. Fourth quarter of June includes 1-2 July. Values are averages of daily counts for quarter, rounded to nearest integer. F = found in period at less than 1 bird/day. P = present by report of other observers, numbers not known. See text for discussion.