

NOTES ON THE OCCURRENCE OF BIRDS IN SOUTHERN NEVADA

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Southern Nevada is an arid, desert area, lying on the north edge of the Great American Desert and just south of the Great Basin. Its general elevation ranges from about 2000 to 4000 feet above sea level and slowly rises to the north toward the 5000 to 6000 foot elevation characteristic of the valleys of the Great Basin. On the south and east sides of southern Nevada is the Colorado River system, with its two large reservoirs, lakes Mead and Mohave. This river system flows in a canyon whose pre-dam floor was at about 500 to 600 feet above sea level. Rising from the desert floor are numerous mountain ranges. Most of these ranges seldom exceed an elevation of about 8000 feet, although the peak of the Charleston Mountains (Spring Mountain Range) reaches 11,910 feet elevation.

Vegetation types in southern Nevada range from the cottonwood-willow (*Populus-Salix*) association along the banks of the Colorado River to the white fir-bristle-cone pine (*Abies concolor-Pinus aristata*) belt high on Mount Charleston. However, most of the notes from which this paper was developed were obtained in the mesquite (*Prosopis juliflora*) bosques along the major drainage systems, in the farming areas of the Virgin, Moapa, Pahrnatagat, and Pahrump valley areas, or from the xeric desert shrub areas on the large alluvial fans between the desert ranges and the valley bottoms. The vegetation on these fans varies from a rather hostile creosote-bush—bur-sage (*Larrea tridentata-Franseria dumosa*) environment at lower elevations (2500 to 3500 feet elevation) to a somewhat more favorable and highly diversified mixed shrub environment on the higher slopes (3000 to 4500 feet elevation). Above this latter type, on the lower slopes of the desert mountain ranges, juniper forests (*Juniperus osteosperma*) abound. These in turn become increasingly dominated by piñon pine (*Pinus monophylla*) as the elevation exceeds 5000 feet.

The vegetation and animal life of this area is characteristic of a transition between two markedly different environments, and an interesting mixture of austral and boreal forms occurs, particularly insofar as the birdlife is concerned.

As is true of most of Nevada few human residents have shown an interest in the native non-game animal life and few records have been maintained. Most of the published information currently available has been the result of trips of short duration by persons from outside of the state. Notable among these have been the many collecting expeditions into Nevada by personnel from the Museum of Vertebrate Zoology at Berkeley, California.

However, southern Nevada has been more fortunate than the central and northeastern parts of the state. Personnel of the National Park Service, administering the Lake Mead Recreational Area, and personnel of the Fish and Wildlife Service on the Desert Game Range have been interested in the native fauna and have recorded much of what is presently in print concerning the animal life of this area. The notes published by Grater (1939a, *et seq.*) and Baldwin (1944, *et seq.*) for the most part were concerned with birdlife in the immediate vicinity of Lake Mead and the Colorado River, while Cottam's papers (1936, *et seq.*) concerned birds in the Pahrnatagat Valley and on the Fish and Wildlife Service installations in southern Nevada.

Van Rossem (1936) and Miller (1945) reported upon the avifauna of two unique and isolated, higher desert mountain ranges. Linsdale's two Nevada papers (1936 and 1951) largely represent a compilation of earlier papers and a review of museum specimens and field notes.

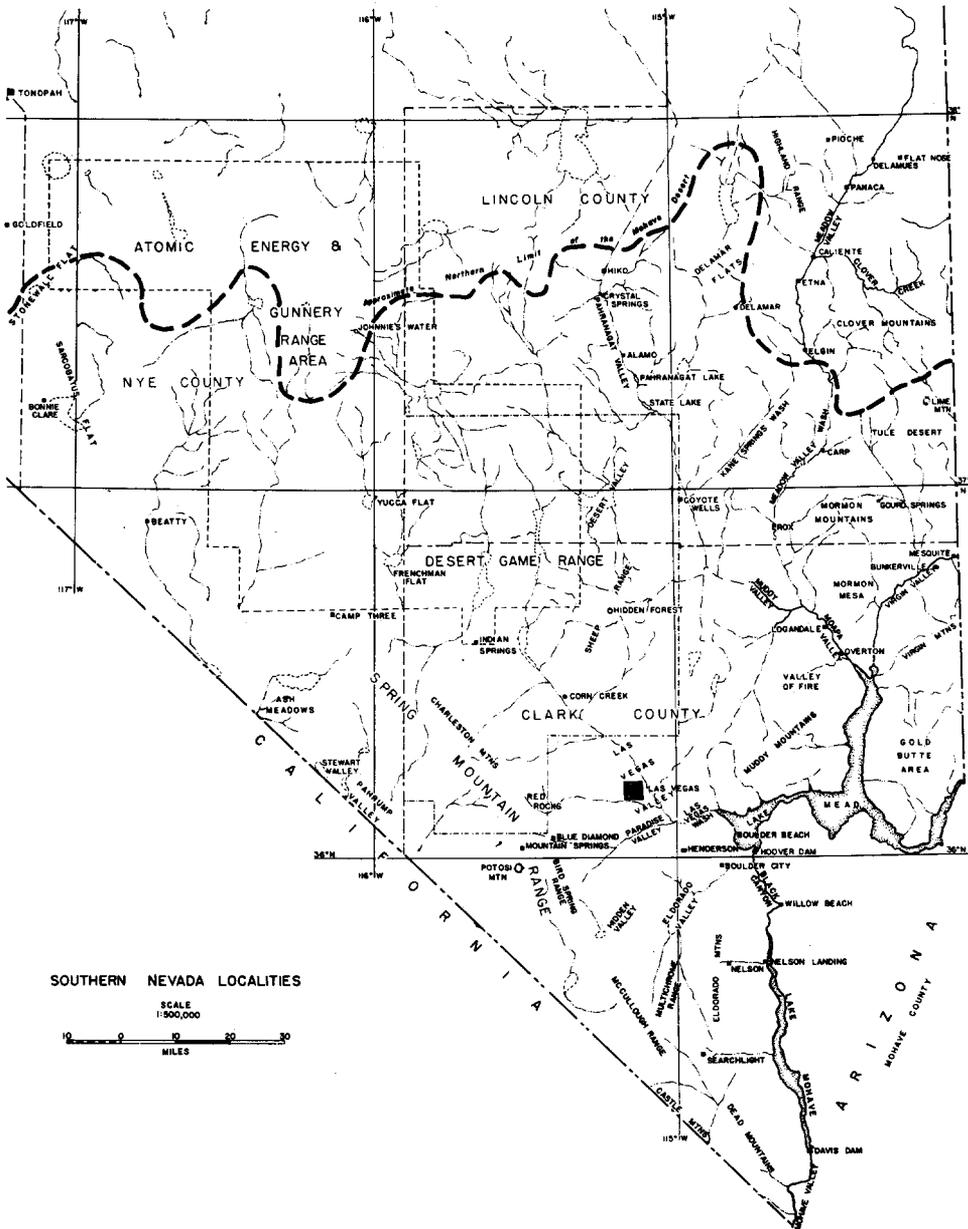


Fig. 1. Map of southern Nevada showing areas mentioned in text.

The notes presented in this paper are summarizations of observations made during yearlong wildlife studies in southern Nevada. For the most part they were made in desert areas which have not been extensively worked by earlier observers.

During the period from March, 1951, to October, 1954, a management-research project sponsored by the Federal Aid Division of the Nevada Fish and Game Commission gave Gullion an opportunity to make observations on the birdlife inhabiting the

rather restricted desert areas in which Gambel Quail (*Lophortyx gambelii*) is able to prosper (cf. Gullion, 1956:39-40). These areas include the brushy desert valleys and the mixed desert shrub lying at 3000 to about 4500 feet elevation.

Pulich was assigned to River Basin Studies, a branch of the United States Fish and Wildlife Service, during the period from October, 1948, to September, 1952. Most of his time was spent working the drainages of the Colorado River; hence his records represent areas infrequently visited by Gullion.

Although Evenden's assignment in the River Basin Studies concerned areas farther north in Nevada, he occasionally had reason to make short excursions into the desert habitats of southern Nevada.

While some of the annotation that follows represents additional records of rare species on the desert areas, the bulk of these notes concern the seasonal occurrence or distribution of birds in this area. This list does not constitute a complete list of the birds occurring on Nevada's southern deserts.

As noted earlier, this southern portion of Nevada for the most part constitutes the extent of the Mohave Desert in Nevada. However, as indicated by the heavy dashed line on the accompanying map (fig. 1), some of the northeastern areas included in this definition of southern Nevada are not typical of the Mohave Desert.

Figure 1 shows the location of the areas noted in this list, and, throughout the text, elevations above sea level are given for localities mentioned for the first time.

Nomenclature throughout this list follows that of the fifth edition of the American Ornithologists' Union Check-list of North American Birds (1957).

Appreciation is extended to Mrs. Nora Poyser of Boulder City, Nevada, to Tom Imhof of Atlanta, Georgia, and to Dr. Allan R. Phillips of Tucson, Arizona, for the privilege of including certain of their notes in this paper. Also, the assistance rendered by Dr. Alden H. Miller of the Museum of Vertebrate Zoology in the identification of several specimens is acknowledged.

Gavia immer. Common Loon. A partly decomposed specimen was found one mile north of Etna (4200 feet elevation, in Rainbow Canyon, Meadow Valley Wash, Lincoln County), on May 26, 1951; and one loon of this species was seen on the Pahranaagat Valley lakes (3000 feet elevation, Lincoln County) on October 26 and November 16, 1951.

Aechmophorus occidentalis. Western Grebe. Imhof reported to Pulich the occurrence of this species at Yucca Flat (4150 feet elevation, Nye County) on October 26, 1951. The bird was "struggling for take-off" from a blacktop airstrip. Another record was obtained by Gullion for several birds on Pahranaagat (Dike) Lake on the same date. Imhof reported one from Lake Mead (1200 feet elevation) on November 26, 1951, and two days later Pulich saw two on Lake Mohave (600 feet elevation), both in Clark County.

Pelecanus erythrorhynchos. White Pelican. Recorded from the Pahranaagat Valley lakes on March 31, 1951 (one bird), May 14, 1952, and on August 10, 1954 (several birds) and from the Colorado River below Davis Dam (500 feet elevation, Mohave Valley, Clark County) on April 5, 1952 (large flock).

Phalacrocorax auritus. Double-crested Cormorant. A common permanent resident on the lakes in the Pahranaagat Valley and on the Colorado River and its reservoirs. In spite of efforts to destroy it, a nesting colony has persisted for several years in the cottonwood grove at the north end of Pahranaagat Lake. Nestlings were present in this colony on May 23, 1951.

Butorides virescens. Green Heron. Two records: one bird seen in Mohave Valley on April 12, 1951, and another at a spring-hole just north of Panaca (4800 feet elevation, Meadow Valley, Lincoln County), August 8, 1952.

Casmerodius albus. Common Egret. Early spring arrivals seen in the Virgin Valley (1700 feet elevation, Clark County) on April 11, 1951. Although Linsdale (1936:31) cites a winter record for

the Colorado River in the Mohave Valley, this April date is our earliest record. This species remains in Mohave Valley as late as October 23 (1951).

Leucophoyx thula. Snowy Egret. Recorded from wet areas in most valleys and on the shores of lakes Mead and Mohave. Early spring arrivals appear about April 28 (1951). Two unusual records: one bird on the Boulder Dry Lake (1700 feet elevation, Eldorado Valley, Clark County), May 3, 1951, and two birds on Sarcobatus Flat (4000 feet elevation, Nye County), at least 26 miles from the nearest pools of water at Springdale (3800 feet elevation, Nye County), May 28, 1953.

Nycticorax nycticorax. Black-crowned Night Heron. Although a fairly common permanent resident in brushy riparian sites along the Colorado River, in Pahrump Valley (2800 feet elevation, Nye County) and along the Meadow Valley Wash and in Pahrnanagat Valley, one unusual record was that of a single individual seen at about 2500 feet elevation in the creosote bush—bur-sage vegetation type on the Quo Vadis slope north of Boulder Dry Lake. This bird was 13 airline miles from the nearest riparian or marsh habitat.

Plegadis chihi. White-faced Ibis. Recorded from the Pahrump Valley, August 5, 1953, two birds; Ash Meadows (2250 feet elevation, Nye County), August 6, 1954, one bird; and Pahrnanagat Lake, August 10, 1954, one bird.

Olor columbianus. Whistling Swan. Two birds were seen by Pulich during an aerial waterfowl survey on Pahrnanagat Lake, January 7, 1952.

Branta canadensis. Canada Goose. A winter visitor, *B. c. moffitti* moves into this area as early as October 23 (1951, Mohave Valley) and remains in some abundance in the Mohave, Virgin, Moapa (1300 feet elevation, Clark County) and Pahrnanagat valleys until as late as March 31 (1949 and 1951). Two birds taken by hunters on November 4, 1951, near Bunkerville (1650 feet elevation, Virgin Valley, Clark County) were banded at Blackfoot Reservoir, Carabou County, Idaho, as adults. One was banded in June, 1947, and the other in June, 1951.

B. c. leucopareia, the "Lesser Canada Goose," was identified among flocks of *B. c. moffitti* seen in the Virgin Valley on November 4 and 23, 1951.

A single *B. c. minima*, the "Cackling Goose," was seen in a flock of the larger races along the Virgin River west of Bunkerville on November 4, 1951. Other birds of this race were seen at Overton (1300 feet elevation, Moapa Valley) on February 28, 1952.

Chen hyperborea. Snow Goose. Recorded from the Pahrnanagat Valley on March 31 and October 26, 1951, and from the Mohave Valley on October 23, 1951; large flocks of northward bound migrants were observed passing over the Gold Butte area (2400 feet elevation), southeast of Overton, on February 25 and March 2, 1953.

Anas platyrhynchos. Mallard. Recorded on ponds and streams throughout the area from September to May, but the species leaves the hotter areas for the summer, remaining to breed in the Pahrnanagat and Meadow valleys (4800 feet elevation, Lincoln County), at least in small numbers.

Anas strepera. Gadwall. An uncommon winter visitor, recorded from ponds and streams throughout the area from as early as August 7 (1952) to as late as May 26 (1951). Recorded localities include Meadow, Pahrnanagat and Pahrump valleys, Ash Meadows and Mead and Mohave lakes.

Anas acuta. Pintail. Recorded from all of the wet, valley areas, from as early as August 7 (1953, Pahrnanagat Valley) to as late as May 26 (1951, Meadow Valley).

Anas carolinensis. Green-winged Teal. One winter record from Lake Mohave, January 7, 1952; and several spring records from February 9 (1954, Overton) to May 14 (1952, Pahrnanagat Valley). One fall record: Imhof reported a single bird, October 26, 1951, at Yucca Flat, on the wet "dry" lake following a rainstorm.

Anas discors. Blue-winged Teal. Noted in the Pahrnanagat Valley on May 8 and 14, 1952.

Statula clypeata. Shoveler. Recorded in the Pahrnanagat and Virgin valleys from as early as August 9 (1951) to as late as March 31 (1951).

Aythya americana. Redhead. Winter visitor, particularly in the Pahrnanagat Valley, from at least August 10 (1954) to May 23 (1951). Also recorded in the Virgin Valley, November 5, 1951, and at Lake Mohave, January 7, 1952.

Aythya collaris. Ring-necked Duck. Five records: Pahrnanagat Valley, March 31, 1951, 30 birds; Pahrump Valley, May 20, 1951, one bird; Willow Beach (600 feet elevation, three birds seen on the interstate waters of Lake Mohave from the Mohave County, Arizona, side), November 26, 1951; and again on Lake Mohave on January 7 (one bird) and 16, 1952.

Aythya valisineria. Canvasback. Three records: Overton, February 13, 1951, one bird; Pahrana-gat Valley, March 31, 1951, about 15 birds; and Lake Mohave, January 7, 1952, one bird.

Bucephala clangula. Common Goldeneye. On February 13, 1951, one was seen at Overton. On March 27, 1951, a flock of goldeneyes seen flying over Las Vegas Valley (1800 feet elevation, Clark County) was believed to be of this species, and four days later, March 31, about eight birds of this species were seen on lakes in the Pahrana-gat Valley. Imhof observed three birds on Lake Mead on November 26, 1951.

Bucephala albeola. Bufflehead. Recorded from as early as November 28 (1951, Lake Mohave) to as late as May 14 (1952, Pahrana-gat Valley).

Oxyura jamaicensis. Ruddy Duck. Recorded as present on southern Nevada waters from August 30 to as late as May 23 (both in 1951 in Pahrana-gat Valley). Also noted frequently in the Virgin and Moapa valleys and on Lake Mohave. Imhof observed two on the wet Yucca Flat dry lake on October 26, 1951, following a rainy spell.

Lophodytes cucullatus. Hooded Merganser. One record: Pulich observed two on Lake Mohave below Hoover Dam, January 16, 1952. This appears to be the first record for this species in southern Nevada.

Mergus serrator. Red-breasted Merganser. Three records: Imhof observed this species on Lake Mead, November 26, 1951. On May 23, 1952, a bird was found dead on U. S. Highway 95 (at 2500 feet elevation) about 19 miles south of Searchlight (3600 feet elevation, Clark County); and on June 3, 1952, a road-killed male was examined on the same highway where it crosses the Boulder Dry Lake in Eldorado Valley (1700 feet elevation).

Cathartes aura. Turkey Vulture. These birds are primarily spring and fall migrants on the desert, with most records falling between March 9 (1951, Overton) and late June, and again in September. Conspicuous migratory flights occur in April. We have three midsummer records from the desert: Las Vegas Valley, July 14, 1951, four birds; Mohave Valley, July 19, 1951, about 15 birds; and two birds over Lake Mead on July 26 and 27, 1952. One bird over the Mohave Valley on January 25, 1952, constitutes the single winter record for this species in Nevada.

Accipiter striatus. Sharp-shinned Hawk. Common on the desert only in fall and spring migration. Fall migration extends from mid-October to late November, and spring migration is primarily in April, although records as early as February 2 (1952, Las Vegas Valley) have been obtained. One bird collected by Gullion in Las Vegas Valley, four miles east of Las Vegas, on April 10, 1952, has been identified at the Museum of Vertebrate Zoology as *A. s. velox* (no. 125707, Mus. Vert. Zool.).

Accipiter cooperii. Cooper Hawk. Absent from the desert in the summer; these hawks arrive from the north as early as August 6 (1953, Pahrump Valley) and remain through the winter until as late as May 20 (1951, also in Pahrump Valley). During heavy fall migration, from about mid-September to early October, and again in spring migration during April, this species, together with the Sharp-shinned Hawk, became so numerous that Gullion had to suspend quail trapping to prevent heavy game-bird losses.

Buteo jamaicensis. Red-tailed Hawk. Although a common fall and spring migrant, the Redtails become appreciably scarcer in July and in the winter period. However, we have several winter records as follows: one bird, December 18, 1951, Dead Mountains (Clark County); one bird, January 16, 1952, over Lake Mohave; January 25, 1951, in Mohave Valley; one bird, January 27, 1952, at Boulder Beach, Lake Mead (1200 feet elevation, Clark County); February 2 (one bird) and 18 (two birds), 1952, in the Valley of Fire (1900 feet elevation, Clark County); one bird, February 22, 1952, at Nelson (3400 feet elevation, Clark County); and one bird, March 10, 1951, Gold Butte area. On May 3, 1951, Pulich banded two nestlings in Poachers Wash (1880 feet elevation), in the Dead Mountains just west of Mohave Valley.

Buteo swainsoni. Swainson Hawk. A common spring and fall migrant on the desert, occurring in the spring from as early as February 6 (1953, Searchlight) to June 21 (1952, Eldorado Mountains, 4000 feet elevation, near Nelson), and in the fall from as early as August 7 (1954, Kane Springs Wash, 3000 feet elevation, Lincoln County) to as late as September 27 (1954, Gold Butte). However, this species also occurs sparingly in summer since Johnson and Richardson (1952:358) obtained nesting records in June, 1951, in the Pahrump Valley and Ash Meadows, and Evenden observed nesting in progress on May 14, 1952, in the Pahrana-gat Valley near Alamo (3400 feet elevation).

Buteo regalis. Ferruginous Hawk. Two records: one on October 22, 1949, in Las Vegas Valley between Henderson (1790 feet elevation) and Las Vegas, and a road-killed male recovered from the highway in Pahrnatag Valley by Gullion on November 16, 1951 (no. 125708, Mus. Vert. Zool.).

Aquila chrysaetos. Golden Eagle. These birds occur sparingly over all parts of the desert from as early as August 7 (1954, Mormon Mountains, Lincoln County) to as late as June 27 (1954, in the same area). Two immature birds on July 9, 1952, in the Gold Butte area constitute the single summer record for the desert, although van Rossem (1936:20-21) cites July records for the Charleston Mountains, Clark County.

Circus cyaneus. Marsh Hawk. Contrary to the statement by Linsdale (1951:232), this species is not "closely restricted to wet meadows and marsh ground" during its occurrence on the southern Nevada deserts. Marsh Hawks are widespread on the desert areas from about September 4 (1953, Gold Butte) to as late as April 8 (1952, Las Vegas Valley). They linger somewhat longer in the more moist desert valleys, remaining as late as May 26 (1951, Meadow Valley) and returning as early as August 6, 1954, Pahrump Valley).

Pandion haliaetus. Osprey. Four more Colorado River records: one bird at Davis Dam on October 23, 1951; one in Mohave Valley, November 30, 1951; and one in Black Canyon, Lake Mohave on January 7 and 16, 1952. Also we have two records away from the river: Imhof observed one flying south over Frenchman Flats (3100 feet elevation, Nye County) on November 12, 1951; and one was seen at Boulder City (2450 feet elevation, Clark County) on August 30, 1952.

Falco mexicanus. Prairie Falcon. Most of the southern Nevada desert records are for spring, extending from February 17 (1953, Gold Butte) to May 23 (1951, Pahrnatag Valley). There are three summer records: July 3, 1951, in Las Vegas Valley; July 8, 1952, in the Gold Butte area; and August 30, 1951, in the Pahrnatag Valley. Van Rossem (1936:21) cites October records for the Charleston Mountains and Indian Springs (3100 feet elevation, Clark County), and we have one winter record of one bird a few miles south of Boulder City, on January 6, 1950.

Falco peregrinus. Peregrine Falcon. Four records of single birds from southern Nevada desert valleys: Pahrump Valley, August 25, 1951; Flat Nose Ranch (5250 feet elevation, 12 miles east-southeast of Pioche, Lincoln County), September 27, 1951; State Lake, Pahrnatag Valley, August 10, 1954; and one seen by Imhof near Johnnies Water (6650 feet elevation, Belted Range, Nye County) on November 28, 1951.

Falco columbarius. Pigeon Hawk. Three records of one bird each: Pahrnatag Valley, October 27, 1951; the Virgin Mesa (1750 feet elevation, on the west slopes of the Virgin Mountains, Clark County), April 17, 1953; and seen by Imhof at Frenchman Flat, October 3, 1951.

Falco sparverius. Sparrow Hawk. Desert records primarily in the spring months, from March 22 (1952, Searchlight area) to mid-July. Fall records are most numerous from August 5 (1953 and 1954, Pahrump Valley) to about September 26 (1954, Gold Butte area), with one late fall record, November 28, 1953, from Gold Butte.

Lophortyx californicus. California Quail. On February 7, 1954, 114 birds of this species were released in the Clover Creek Valley, about three miles east of Caliente (4500 feet elevation, Lincoln County). Although these birds have dispersed as far as Delamue's (19 miles north), where a banded bird was taken in November, 1954, the success of this release is still uncertain.

Perdix perdix. Gray Partridge. Records maintained by the Clark County Game Management Board show that about 200 birds of this species were released in Clark County (site not specified) during the early 1930's. This plant apparently failed since there have been no subsequent reports of this species in southern Nevada.

Alectoris graeca. Chukar Partridge. Sparingly established in at least four locations in southern Nevada. A population became initially established in the Virgin Mountains as the result of a release of 25 birds at Sheep Spring (4200 feet elevation) on June 15, 1953. Several substantial subsequent releases (about 600 birds in all) were made to speed the development of this population. Other populations occur in the Cottonwood Canyon area (3800 feet elevation, Clover Mountains, 7 miles east of Elgin), at the Flat Nose Ranch, and near the Comet Mine, 6480 feet elevation, on the west side of the Highland Range, Lincoln County (Gullion and Christensen, 1957:133).

A number of earlier releases by sportsmen's groups in more typically desert environments failed. Christensen (1954:16) shows the release of 195 birds at various Clark County locations such as Potosi Mountain, Gold Butte, Red Rock Spring (4400 feet elevation, Red Rock area, 18 miles west of

Las Vegas, Clark County), Knob Hill (4300 feet elevation, Eldorado Mountains, near Nelson), and Callville Wash (1500 feet elevation, north shore of Lake Mead, Clark County). In addition more than 270 chukars have been released in desert habitats by Nye and Lincoln county sportsmen's groups without success.

Fifty-four birds of the race *A. g. cypristes*, the so-called Turkish Chukar, were released in Meadow Valley Wash a few miles south of Caliente on March 17, 1955. The success of this release is still not certain.

Porzana carolina. Sora. Birds were noted in Las Vegas Wash (1500 feet elevation, Clark County) on September 29 (nine or more) and November 3, 1951, and on April 5, 1952; one bird was noted southwest of Panaca on May 14, 1952. On May 17, 1953, a bird captured in Meadow Valley was turned over to Nevada Fish and Game Commission personnel at Las Vegas.

Charadrius vociferus. Killdeer. Most common as a spring and fall migrant wherever water occurs on the desert. Spring records extend from February 12 (1954, Meadow Valley) to June 3 (1952, Las Vegas Valley), and fall records run from August 5 (1953 and 1954, Pahrump Valley) to November 16 (1951, Pahrnagat Valley). Van Rossem (1936:22) cites July records for Indian Springs and the Charleston Mountains.

Capella gallinago. Common Snipe. Records from desert areas include the following: Boulder City, March 8, 1950 (Pulich's lawn); Las Vegas Wash, March 1, 1951; Boulder City, September 11, 1951 (Gullion's lawn); Virgin Valley, November 5, 1951; and a fresh road kill in the Logandale area (1800 feet elevation, Moapa Valley, Clark County) found on November 13, 1951.

Actitis macularia. Spotted Sandpiper. May and August migrant through the desert. Spring dates fall between April 28 (1951, Las Vegas Wash) and May 26 (1951, Meadow Valley), and fall dates extend from July 19 (1951, along the Colorado River in Mohave Valley) to August 29 (1951, Meadow Valley Wash south of Rox, 2000 feet elevation, Lincoln County). Van Rossem (1936:22) cites July records for the Charleston Mountains and September records for Indian Springs.

Tringa solitaria. Solitary Sandpiper. Two records: four birds, Pahrump Valley, August 5, 1953; and "several" birds, Pahrnagat Lake, August 18, 1954.

Catoptrophorus semipalmatus. Willet. Two records: one bird, Pahrump Valley, August 25, 1951; and Lake Mead, August 2, 1951, about 100 birds (reported to Pulich by National Park Service personnel).

Totanus melanoleucus. Greater Yellowlegs. A rare spring and fall migrant at desert waterholes and ponds. Three spring records fall between March 21 (1952, Las Vegas Valley) and April 7 (1952, Boulder Dry Lake), and four fall records extend from August 4 (1953, along the Colorado River in Mohave Valley) to September 24 (1954, Overton area).

Totanus flavipes. Lesser Yellowlegs. One record: one bird on a lawn being watered with a sprinkler at Desert Game Range Headquarters, Corn Creek (2900 feet elevation, Clark County), on July 30, 1951.

Limnodromus scolopaceus. Long-billed Dowitcher. Three records: nine birds, Las Vegas Valley, March 26, 1951; many birds, Pahrnagat Valley, October 26, 1951; and one bird on the shoreline of Lake Mead near Overton, August 12, 1953.

Ereunetes mauri. Western Sandpiper. One spring record: one bird, Las Vegas Valley, April 30, 1951. Four fall records, from August 8 (1953, Meadow Valley) to August 18 (1954, Pahrnagat Valley).

Limosa fedoa. Marbled Godwit. Two records: Pahrnagat Lake, August 18, 1954, seven birds on a mud flat; and Boulder Dry Lake (with water in it), Eldorado Valley, one bird on September 11, 1957.

Himantopus mexicanus. Black-necked Stilt. Two records: 13 birds, Pahrnagat Valley, May 23, 1951; and one bird, Pahrump Valley, August 6, 1953.

Steganopus tricolor. Wilson Phalarope. One spring record, one bird, Pahrump Valley, May 20, 1951; and four fall records, from August 4 (1954, Mohave Valley) to August 30 (1951, Pahrnagat Valley).

Larus delawarensis. Ring-billed Gull. Two records away from lakes Mead and Mohave (where of regular occurrence): about 40 birds on March 31 and three birds on May 23, 1951, in the Pahrnagat Valley.

Chlidonias niger. Black Tern. Two records: 8 to 10 birds in migration over Stonewall Flat (4500 feet elevation, Esmeralda County), August 4, 1951; one bird, Pahranaagat Valley, August 18, 1954.

Zenaidura asiatica. White-winged Dove. This dove is a common summer resident in the hot, humid bottomlands of the Mohave Valley. The earliest spring record is the May 9 (1934) date given by Linsdale (1936:61), while our earliest date is May 14 (1951). These doves remain in this area until at least as late as August 4 (1954) and probably later, for Pulich found a nest containing two eggs at Fort Mohave (540 feet elevation), on the Arizona side of Mohave Valley, on August 3, 1950. Other records include Hyco Springs (1880 feet elevation), May 23, 1953, and Grapevine Springs (2360 feet elevation), August 4, 1954, both sites on the east slope of the Dead Mountains; and Overton, on June 13, 1953, and August 3, 1954.

This species appears to be expanding its range in southern Nevada, having been seen frequently in the Moapa Valley in the vicinity of Overton in the summer of 1954. Mrs. Poyser observed three Whitewings in the Pahranaagat Valley on July 16, 1953 (Monson, 1953b:321), and this species was reported from the Pahrump Valley earlier (Johnson and Richardson, 1952:358).

Zenaidura macroura. Mourning Dove. Although listed as a permanent resident by Linsdale (1951:235), we have no winter records on the desert. The earliest spring record is for March 9 (1953), and our latest fall record is for November 11 (1951), both in the Las Vegas area. Nesting is under way by mid-May and extends into August. The numbers of these doves on the desert varies greatly from year to year. In 1952, when food conditions were exceptionally favorable (cf. Gullion, 1956:34-35) doves were abundant nesters on all parts of the desert until the end of June. In other years nesting is mostly restricted to valley areas.

Coccyzus americanus. Yellow-billed Cuckoo. Two records of single birds: Boulder City, May 23, 1950; Mohave Valley, August 14, 1952.

Geococcyx californianus. Roadrunner. Although apparently a permanent resident of all southern Nevada desert areas, this bird is most abundant in the valley areas. The northernmost record in Nevada is of a bird seen near Panaca on August 9, 1951. The curious courting antics of this bird are under way by mid-March, and a nest with newly hatched chicks and some eggs was found in a cholla (*Opuntia bigelovii*), at about 1700 feet elevation on the southeast slope of the Dead Mountains on June 7, 1952.

Tyto alba. Barn Owl. Three records: one bird, Searchlight area, August 17, 1951; one bird, Dead Mountains (3200 feet elevation, at the head of Empire Wash), July 11, 1952; and one bird in the Gold Butte area, September 20, 1954.

Otus asio. Screech Owl. Six records: one heard the night of September 28, 1951, at the Flat Nose Ranch; several collected by Phillips and Pulich in Mohave Valley on October 1, 1951; a fresh road kill picked up by Gullion in Mesquite (1800 feet elevation, Virgin Valley, Clark County) on November 11, 1951 (no. 125714, Mus. Vert. Zool.); one collected by Pulich in Mohave Valley on August 14, 1952; one collected by Gullion at Catclaw Spring (2300 feet elevation), Gold Butte area, February 17, 1953 (skin later destroyed by a wood rat); and one bird heard in Cedar Basin (4400 feet elevation), Gold Butte area, September 30, 1954. A. R. Phillips identified the Mohave Valley birds as being *O. a. yumaensis*, while A. H. Miller identified the Mesquite bird as belonging to the race *O. a. cineraceus*.

Bubo virginianus. Great Horned Owl. Linsdale (1951:236) lists this species only from the Charleston Mountains and along the Colorado River. Additional records have been obtained in Pahrump Valley, May 20, 1951; Eldorado Mountains, June 3, 1952; Dead Mountains, July 2, 1952, and March 3, 1954; Gold Butte area, September 3, 1951, March 30 and April 1, 1953, September 23 to 30, 1954; and the Flat Nose Ranch, September 28, 1951.

Speotyto cunicularia. Burrowing Owl. Seven records: a nesting burrow regularly occupied was examined near Cataract Spring (2480 feet elevation), Gold Butte area, March 9, 1951; a considerable number of birds was flushed from a roadway in the Dead Mountains on the evenings of July 2 and 11, 1952; a single bird caught in a quail trap and banded, Las Vegas Valley, November 27, 1952; a single bird on the Manse Ranch (2770 feet elevation, Pahrump Valley), August 5, 1954; and Imhof saw this species at Frenchman Flat, October 3, 1951, and at Bonnie Clare (3950 feet elevation, Nye County), October 7, 1951.

Asio otus. Long-eared Owl. A permanent resident in the Las Vegas Valley, with fledglings noted there on May 23, 1952.

Phalaenoptilus nuttallii. Poor-will. Summer resident on all desert ranges (possibly a permanent resident), becoming common in April and remaining so until the end of August. Stragglers were noted in the Gold Butte area on October 11 and 12, 1951, and in the Virgin Mountains on November 23, 1953. Two winter records: one bird, Quo Vadis area (2400 feet elevation, 5 miles south of Henderson, Clark County), January 24, 1952; and one bird in the Gold Butte area, February 25, 1953. A nest containing a single egg was found at about 5000 feet elevation on the northeast side of Potosi Mountain, Clark County, April 24, 1952.

Chordeiles acutipennis. Lesser Nighthawk. Common summer resident in all desert valley areas. Earliest spring arrivals were recorded on April 10 for three consecutive years, at Las Vegas in 1951, Boulder City in 1952, and Overton in 1953. Most of the birds have departed by mid-August, but one late record, on October 31, 1953, was obtained in Las Vegas Valley.

During the hotter summer days, when the air temperatures exceed 108° to 110°F. in the Las Vegas Valley, these birds leave their daytime roosts and course lazily back and forth, low over the mesquite bosques. These are apparently not foraging flights, but simply cooling efforts. As the heat diminishes later in the day the nighthawks disappear into the dense thickets, where they roost until their feeding forays commence at dusk.

Chaetura vauxi. Vaux Swift. Five May records (all migration dates): in 1951, May 8 in Las Vegas Valley, May 3 and 14 in the Mohave Valley area, May 23 in the Pahrnagat Valley; and in 1953, May 3, at Willow Beach, Lake Mohave (over interstate waters).

Aeronautes saxatalis. White-throated Swift. Common summer resident in the rougher desert mountain ranges, tending to wander widely over the desert (as singles and flocks) after the nesting season. Our earliest spring arrival date is February 27 (1954, Overton area), although most of the birds do not arrive until April. Our latest fall record is September 28 (1954, Gold Butte area).

Archilochus alexandri. Black-chinned Hummingbird. One record: a single male in Mohave Valley opposite Fort Mohave, May 2, 1952.

Calypte costae. Costa Hummingbird. Records only for the spring period. Perhaps the birds move farther north as the summer heat increases and flowers wither. The earliest recent record is by Mrs. Poyser from Boulder Beach, February 24 (1952); the latest, June 28 (1954), from the Mormon Mountains. Linsdale (1936:67) records birds taken on February 13, 1934, in the Dead Mountain-Mohave Valley area.

Selasphorus platycercus. Broad-tailed Hummingbird. Two records: at least six migrant birds at Gourd Springs (3800 feet elevation, Mormon Mountains, 14 miles southeast of Carp, Lincoln County) on September 1, 1951. National Park Service personnel reported to Pulich having seen a bird in Boulder City on August 31, 1951.

Selasphorus rufus. Rufous Hummingbird. Three fall records: three birds seen at Big Pine Spring (5500 feet elevation, McCullough Range, 16 miles northwest of Searchlight), August 21, 1951; one bird at McCullough Spring (4100 feet elevation, McCullough Range), August 22, 1951; and one bird at Mule Springs (4890 feet elevation, 4 miles west of Mountain Springs, Clark County), August 24, 1951.

Megaceryle alcyon. Belted Kingfisher. Three records: one bird, Pahrnagat Valley, May 24, 1951; one bird, Overton, September 5, 1951; and one bird in the Panaca area in Meadow Valley, August 11, 1954.

Colaptes cafer. Red-shafted Flicker. A winter visitor on the desert, arriving about September 20 (1954, Gold Butte area) and remaining as late as May 14 (1951, Mohave Valley). Summer records are mostly for higher or more northerly areas, although a record for July 1, 1954, was obtained for one bird in a Joshua tree (*Yucca brevifolia*) forest on the south end of the Multichrome Range northwest of Searchlight.

Centurus uropygialis. Gila Woodpecker. Three records: Mohave Valley, August 15, 1951, and January 25, 1952; and one bird in Las Vegas Valley, March 15, 1953.

Asyndesmus lewis. Lewis Woodpecker. Three spring records on the desert: one bird found dead in Boulder City, March 21, 1951; one bird in Pahrump Valley, May 20, 1951; and one bird in the Eldorado Mountains near Nelson, May 5, 1953. All previously published records for Nevada's deserts have been for dates from September to November.

Dendrocopos villosus. Hairy Woodpecker. Three additional records: one bird seen at Indian Spring and one in Cabin Spring Canyon (both at about 4500 feet elevation), on the north slope of the

Virgin Mountains, 8 miles south of Mesquite, November 27, 1953; Imhof reports one in the Charleston Mountains (at 7500 feet elevation) south of Indian Springs on October 6, 1951.

Dendrocopos pubescens. Downy Woodpecker. One bird was seen in the mesquite bosque (1800 feet elevation) in Las Vegas Valley about 4 miles east of Las Vegas on March 17, 1951. This is the first record for this species in southern Nevada.

Dendrocopos scalaris. Ladder-backed Woodpecker. Common permanent resident on the desert ranges, especially in mesquite thickets and Joshua tree forests. Records from the head of Pennsylvania Wash (6500 feet elevation) in the Clover Mountains, 8 miles northeast of Elgin, on August 31, 1951, and from the Garden Spring area (4500 feet elevation) on the north edge of the Tule Desert, 15 miles southeast of Elgin, on June 26, 1954, as well as the recent record for the Hiko area (4100 feet elevation, Lincoln County) by Johnson (1956:450), indicate that these birds range to the northern limits of the Mohave Desert in Nevada.

Tyrannus verticalis. Western Kingbird. As stated by Linsdale (1951:238) this bird occurs commonly in the moist valley areas; it also occurs on the desert ranges, particularly in the vicinity of human habitation. Normal arrival dates fall in late March or early April (March 31, 1951, at Alamo, and April 8, 1952, near Las Vegas). Our latest fall record is September 5 (1951, Lake Mead), but most of the birds have departed by the end of August. Nesting extends from about May 19 to at least July 19.

Myiarchus tyrannulus. Crested Flycatcher. One additional record: a single bird seen in a mesquite bosque in Ash Meadows, on August 25, 1951. This apparently constitutes the second record for this species in Nevada, and the first outside of the Colorado River drainage system (cf. Pulich, 1952).

Myiarchus cinerascens. Ash-throated Flycatcher. Spreading over the desert in early April (April 2, 1953, Gold Butte area), this bird is one of the few species common on all parts of the desert all summer. A record for September 5, 1951, from the Muddy Mountains, Clark County, is our latest fall record on the desert ranges. One additional winter record; one bird, Mohave Valley, January 25, 1952.

Sayornis nigricans. Black Phoebe. Probably an uncommon permanent resident, with records available for all seasons: Pahrump Valley, May 20, 1951; Highland Spring (4400 feet elevation, Multichrome Range), August 21, 1951; McCullough Spring, August 22, 1951; Davis Dam area, October 23, 1951; Virgin Valley, November 5, 1951; Boulder City, February 28, May 23, and August 4, 1952; Searchlight, June 4, 1952; Mohave Valley, August 4, 1953; Overton, August 7, 1953; Crystal Springs (3900 feet elevation, 4 miles south of Hiko), Pahranaagat Valley, August 7, 1953; Boulder Beach, Lake Mead, January 26 and 27, 1952; Las Vegas Wash, August 11 and November 3, 1951, and March 1, 1952; and near Panaca, May 14, 1952.

Sayornis saya. Say Phoebe. We have several winter records outside of the lower Colorado River area (cf. Linsdale, 1951:238), as follows: Boulder City, December 21, 1949; Boulder Beach, January 20, 1951; Las Vegas Valley, January 24, 1952; Valley of Fire, February 2, 1952; and west of Emerson Spring (1600 feet elevation), Muddy Mountains, February 28, 1954. Nest building was begun at Boulder Beach on February 22, 1952, with eggs by March 1. Other nesting records include eggs on April 12, 1951, in the Virgin Mountains, April 26, 1952, in the Dead Mountains, and near Nelson on May 3, 1951; and nestlings in the Dead Mountains on May 7, 1951, and in Meadow Valley on May 26, 1951.

Nuttallornis borealis. Olive-sided Flycatcher. Four records: two birds, Mohave Valley, May 3, 1951; one bird, Pahrump Valley, May 19, 1951; and one bird, Ash Meadows, May 20, 1951, all in mesquite habitats; and one bird, Deer Creek, 9000 feet elevation, Charleston Mountains, August 9, 1952.

Pyrocephalus rubinus. Vermilion Flycatcher. Permanent resident, regularly recorded from Paradise Valley south of Las Vegas, Pahrump Valley, Moapa Valley, and as far north as Crystal Springs in Pahranaagat Valley on August 7, 1953. Mrs. Poyser saw a single male at Boulder Beach on February 28, 1951, during a snowstorm.

Eremophila alpestris. Horned Lark. Common winter visitors and less common, but widespread, summer residents. Summer records are from these areas: Mormon Mountains, August 10, 1951, June 28, 1952, June 25, 1953, June 23 and 25, 1954; Desert Valley (4000 feet elevation, Lincoln County), June 27, 1951; Kane Springs Wash, August 30, 1951; Pahranaagat Valley, June 28, 1952; Las Vegas Valley, June 28, 1952, and August 6, 1954; Pahrump Valley, August 5 and 6, 1953, and August 6, 1954; Hidden Valley (3800 feet elevation, 22 miles south of Las Vegas, Clark County),

June 29, 1954; and Tule Desert (3500-4000 feet elevation, Lincoln County), June 26 and 27, 1954. Pulich found young just out of the nest near Boulder City on July 7, 1952.

Tachycineta thalassina. Violet-green Swallow. Spring and fall migrant on the desert. The earliest spring arrival record is for March 4 (1952, Overton), with birds remaining as late as June 21 (1951, Red Rock area). Fall movement has been noted as early as August 6 (1954, Pahrump and Las Vegas valleys), and as late as September 29 (1951, Las Vegas Valley) and October 2 (1951, Mohave Valley).

Iridoprocne bicolor. Tree Swallow. Our spring records are not as early as those given by Linsdale (1936:81), our earliest being March 3 (1954, Davis Dam area); records extend until as late as May 19 (1951, Pahrump Valley). Southward migration was noted as early as July 19 (1951, Mohave Valley), and it extends as late as September 2 (1953, Gold Butte area).

Riparia riparia. Bank Swallow. Two records: both from Pahrangat Valley, May 24, 1951 (one bird) and August 7, 1953 (one bird).

Stelgidopteryx ruficollis. Rough-winged Swallow. One nesting record: Meadow Valley, May 26, 1951, and another, possibly, in Pahrangat Valley, May 24, 1951. A flock of five birds flying northward was seen in Las Vegas Valley on June 28, 1951.

Hirundo rustica. Barn Swallow. An uncommon spring and fall migrant, between April 12 (1953, Overton) and June 4 (1951, Boulder City), and from August 8 (1953, Meadow Valley) to as late as October 3 (1951, Las Vegas Valley). Fisher (1893:110) records an earlier spring record from Ash Meadows on March 19, 1891.

Petrochelidon pyrrhonota. Cliff Swallow. Uncommon migrant, in the spring from May 3 (1953, Willow Beach, Lake Mohave) to June 28 (1951, Las Vegas Valley); and in the fall, from August 5 (1952, Boulder City) and August 6 (1953 and 1954, Pahrump Valley) to as late as September 5 (1951, Overton area). Van Rossem (1936:33) records a later date, September 13, 1930, at Indian Springs.

Progne subis. Purple Martin. Four records: one bird in Mohave Valley on May 14, 1951; 14 birds in Muddy Valley (1700 feet elevation, Clark County) on August 28, 1951; a "flock" of birds near Carp (2600 feet elevation, Meadow Valley Wash, Lincoln County) on August 29, 1951; and three birds in Pahrump Valley on August 5, 1954. These appear to be the first records for this species in Nevada since 1868 (cf. Linsdale, 1936:83).

Aphelocoma coerulescens. Scrub Jay. Fairly common permanent resident in most of the desert ranges, being particularly common in the oak chaparral (*Quercus-Garrya*) habitat. Occurrence of this species in the mesquite bosques of the lower valleys seems to be uncommon, but we have three records of such wanderings: Las Vegas Valley, March 17, 1951; and south of Overton, June 13 and August 11, 1953. On occasions this species also occurs in the Joshua tree environment, as in the Searchlight area on August 17, 1951; and even in the lower desert shrub (*Larrea-Dalea-Franseria-Krameria*) type, as in the Valley of Fire, September 13, 1957. Occasionally this jay takes advantage of the oasis at Boulder City, having been noted there on September 15 and October 3, 5, and 11, 1950, and on January 31 and April 9, 1951.

Corvus corax. Common Raven. Uncommon but widely distributed permanent resident on the desert. Ravens are seen most frequently as scavengers along the major highways across the desert. Road-killed rodents and reptiles furnish an ample food supply, and the density of Ravens in the vicinity of these highways is normally much higher than in more remote areas.

Corvus brachyrhynchos. Common Crow. A common winter visitor in at least the Moapa and Virgin valleys, arriving as early as October 10 (1951) and remaining as late as February 28 (1952). One summer record, from Pahrump Valley, August 25, 1951. Fisher (1893:71) records crows in Pahrump Valley as late as March, 1891.

Gymnorhinus cyanocephala. Piñon Jay. Widely scattered spring, summer, and fall residents, but of erratic occurrence. Records of flocks extend from as early as March 30 (1953, Virgin Mountains) to as late as September 27 (1951, Flat Nose Ranch). The absence of this species from desert areas in late fall and during the winter is not understood. Cottam (1936:123) noted this species 8 miles east of Alamo on March 5, 1925. Although these jays are normally associated with piñon pines, they are not uncommon in Joshua tree and oak chaparral areas on the desert, and they were seen in the desert shrub (*Yucca-Dalea-Acacia-Larrea-Coleogyne*) near Nelson on May 3, 1951.

Nucifraga columbiana. Clark Nutcracker. Although a common resident in the Charleston Mountains (cf. van Rossem, 1936:35), this species seldom occurs on the deserts. However, in 1951, a small group of nutcrackers spent most of July in Boulder City and were noted there as late as August 23.

During their stay in this area maximum daily temperatures reached 109°F. and averaged about 89°F. This invasion of a desert habitat in Nevada by this species more or less coincided with a widespread invasion of lowland areas to the west in California during the fall and winter of 1950-51 (Davis and Williams, 1957:297).

Parus gambeli. Mountain Chickadee. Recorded twice from the piñon-juniper covered McCullough Range (at about 5500 feet elevation), about 16 miles northwest of Searchlight, on August 21, 1951, and March 29, 1952. This species is of common occurrence in the Charleston Mountains and Sheep Range (van Rossem, 1936:35-36), but it has not been previously recorded in southern Nevada away from that area.

Parus inornatus. Plain Titmouse. Recorded on four occasions from the higher (4200 to 4500 feet elevation) piñon-juniper covered parts of the Gold Butte area, on October 14, 1951, June 19 and August 31, 1953, and September 26, 1954.

Auriparus flaviceps. Verdin. Although reported to be restricted to the Colorado and Virgin valleys by Linsdale (1951:239), this species is as widely distributed as the honey mesquite (*Prosopis juliflora*) in southern Nevada. Johnson and Richardson (1952:358) first record this bird away from the Colorado drainage, finding it in the Pahrump Valley and Ash Meadows in June, 1951. We have additional records for Pahrump Valley on May 19, 1951, and August 6, 1953 and 1954, and for Stewart Valley (2400 feet elevation, Nye County) on May 20, 1951. On the upland desert areas the catclaw (*Acacia greggii*) suffices as habitat for Verdins, and in this environment they have been observed in the McCullough Range on April 16, 1951; Eldorado Mountains near Nelson on May 3, 1951; Searchlight area on February 6, 1953, and August 5, 1954; Muddy Mountains on February 11 and 28, 1954; and on numerous occasions in the Gold Butte area. Fledglings were noted in Las Vegas Valley on May 24, 1952.

Psaltriparus minimus. Common Bushtit. Uncommon resident in brushy areas on the desert ranges. Recorded during most months of the year from the Mormon, Clover and Virgin mountains, the Tule Desert, and the Gold Butte area, these being all of the ranges on the eastern edge of Nevada's southern desert. Also noted on June 28, 1952, at Potosi Spring (5700 feet elevation), on the north slopes of Potosi Mountain.

Sitta canadensis. Red-breasted Nuthatch. Two records away from Boulder City (where there are numerous fall records): one bird in a catclaw thicket near Catclaw Spring, in the Gold Butte area, on September 28, 1954; and a small flock near Indian Spring, in the Virgin Mountains, on November 27, 1953.

Sitta pygmaea. Pygmy Nuthatch. One record away from the Charleston Mountains and the Sheep Range (where they are common—see van Rossem, 1936:38): several birds in the piñon pines near Big Pine Spring, McCullough Range, on March 29, 1952.

Campylorhynchus brunneicapillus. Cactus Wren. A fairly common permanent resident, normally found in the Joshua tree forests on the desert ranges, but also regularly recorded from the mesquite bosques in Las Vegas Valley. Frequent records have been obtained in the Castle (Clark County), Virgin, and Mormon mountains, and in the Gold Butte area. The northernmost record is from the Lincoln County country adjacent to Utah, southeast of Lime Mountain on the Tule Desert (4000 feet elevation), 24 miles east-northeast of Carp, on June 27, 1954.

Catherpes mexicanus. Canyon Wren. Uncommon permanent resident, recorded from the cliffs of Black Canyon above Lake Mohave on January 7, 1952, and in the higher elevations from March through November. Recorded from the Dead, Eldorado, Virgin, and Mormon mountains and from the Gold Butte area.

Salpinctes obsoletus. Rock Wren. Common fall, winter and spring visitor, but seldom recorded on the desert in the summer, from about the middle of June (June 21, 1952, near Nelson) to late July or early August (July 27, 1952, Las Vegas Wash and August 4, 1954, Dead Mountains). This species is known to occur on the higher desert ranges (Charleston Mountains and Sheep Range) in the summer (van Rossem, 1936:40).

Mimus polyglottos. Mockingbird. At least sometimes a winter resident in the Mohave Valley, having been noted there on January 25 and 31, 1952. Mockingbirds move into the higher and more northerly areas in late March (March 31, 1952, Blue Diamond, 3200 feet elevation, Clark County) and remain at least to mid-August (August 21, 1951, McCullough Range). A pair with fledglings recently out of the nest was seen at 4000 feet elevation in the Mormon Mountains on August 10,

1954. The parent birds were having some difficulties preventing a Loggerhead Shrike (*Lanius ludovicianus*) from preying upon their fledglings.

Toxostoma bendirei. Bendire Thrasher. Two records: on June 26, 1954, an adult male was collected by Gullion from an open stand of Mohave yucca (*Yucca schidigera*) on the south edge of the Tule Desert (3000 feet elevation), 10 miles east-southeast of Carp (no. 132624, Mus. Vert. Zool.). On July 1, 1954, at least five more birds of this species were seen in the dense Joshua tree forest between the south end of the Multichrome Range and the McCullough Range, 11 miles northwest of Searchlight. These constitute the second and third records of this species in Nevada. It was recorded previously from the Delamar area (5000 feet elevation, Lincoln County) by Jewett (1940a).

Toxostoma curvirostre. Curve-billed Thrasher. One record: in the course of a five and one-half hour count at a quail waterhole at Maynard Spring (2200 feet elevation), Gold Butte area, on August 10, 1953, a single individual of this species was seen foraging among the litter under large catclaws for more than an hour, often coming to within 20 feet of the truck in which Gullion was sitting. This species has not been reported from Nevada previously.

Toxostoma lecontei. Le Conte Thrasher. Not common but recorded from the Eldorado Mountains south to the California state line, Bird Springs area (4300 feet elevation, Clark County), Ash Meadows, Mormon Mountains, Tule Desert, and Kane Springs Wash. The Kane Springs Wash record, for August 7, 1954, apparently is the most northerly record for this species in Nevada. Records extend from February 6 (1953, Searchlight) to as late as August 27 (1952, Eldorado Mountains near Nelson). This thrasher is most commonly seen in areas of Mohave yucca and Joshua trees, but on July 1, 1954, one bird was seen in the creosote-bush—bur-sage type of desert at the south end of Eldorado Valley. Phillips reported encountering an adult with six young south of Searchlight on August 16, 1952. A bird collected by Gullion, at 2800 feet elevation, 8 miles southeast of Searchlight, on June 4, 1952, has been identified at the Museum of Vertebrate Zoology as *T. l. lecontei* (no. 126600, Mus. Vert. Zool.).

Toxostoma dorsale. Crissal Thrasher. These birds are normally closely restricted to the mesquite thickets in the Las Vegas, Pahrump, and Moapa valleys, being common year-round residents in these areas. However, they occasionally are seen in situations outside of this habitat. Notable records were obtained in the Gold Butte area on March 25 and 31, and September 2, 1953, and from September 20 to October 1, 1954; in the Dead Mountains on May 23, 1953; and at Highland Spring in the Multichrome Range, July 1, 1954. Banding records of these thrashers in the Las Vegas Valley suggest that these birds ranged over only a few hundred feet of mesquite bosque during a year's time.

Oreoscoptes montanus. Sage Thrasher. Spring and fall migrant on the desert, becoming common about February 10 (1954, Virgin Mountains) and having been noted as late as June 25 (1953, Mormon Mountains). Most of the birds, however, have passed to the north by mid-April. Southward migration in the fall has been noted between August 10 (1954, Pahranaagat Valley) and September 29 (1954, Gold Butte area). This species may summer as far south as the Panaca area, Meadow Valley, and van Rossem (1936:40) found the species nesting in the Charleston Mountains. Linsdale's (1936:95) winter records for January 31 to February 5, 1934, in Mohave Valley, may represent stragglers or early spring migrants. Mrs. Poyser reported seeing two at Boulder Beach on January 1, 1951.

Turdus migratorius. Robin. Most common on the desert as a winter visitor from mid-October to early April, having been noted in the Gold Butte area from October 13 (1951) to April 6 (1953). Mrs. Poyser reported Robins nesting in Boulder City during 1953 and 1954 (Monson, 1953b:321; 1954:324).

Hylocichla guttata. Hermit Thrush. Uncommon spring and fall migrant on the desert. Spring dates extend from February 11 to May 31 (both 1951, at Boulder City), and fall dates extend from October 5 (1950, Boulder City) to November 30 (1951, Mohave Valley). The latter bird was collected and identified as *H. g. nanus* by A. R. Phillips.

Hylocichla ustulata. Swainson Thrush. One record: a bird trapped and banded near Turkey Spring (3000 feet elevation), in the Gold Butte area, September 27, 1954. This appears to be the first record for this species in southern Nevada.

Sialia mexicana. Western Bluebird. Six records: small flocks in mesquite thickets (feeding on fruit of mistletoe, *Phoradendron californicum*) in Las Vegas Valley on January 12 and 21, 1952, and March 15, 1953; and in Mohave Valley, January 25 and 31, 1952. One summer record from Hidden Forest (8000 feet elevation), Sheep Range, Clark County, June 27, 1951.

Sialia currucoides. Mountain Bluebird. Sparingly recorded from low desert ranges in winter, from as early as September 2 (1951, Virgin Mountains) to April 26 (1951, Mormon Mountains). Recorded at one time or another in winter from all of the desert valleys and ranges in southern Nevada.

Myadestes townsendi. Townsend Solitaire. A widespread and fairly frequent winter visitor to the desert, having been recorded as early as September 10 (1951) at Boulder Beach by Mrs. Poyser to as late as June 5 (1955) at Boulder City, also by Mrs. Poyser (Monson, 1955:395). Two summer records: Hidden Forest, Sheep Range, June 27, 1951, and reported by Mrs. Poyser at Lake Mead, August 16 and 23, 1952 (Monson, 1953a:30).

Poliottila caerulea. Blue-gray Gnatcatcher. Permanent resident on the intermediate (3500 to 5000 feet elevation) desert ranges, being most frequently found in close proximity to springs and water-holes. This species normally occurs in willow and cottonwood thickets in oak chaparral and piñon-juniper areas.

Poliottila melanura. Black-tailed Gnatcatcher. Recorded from Las Vegas Valley throughout the year, spreading to brushy washes in the lower desert ranges in April and remaining as late as August. This species is normally closely restricted to mesquite and catclaw thickets below an elevation of about 3000 feet.

Regulus satrapa. Golden-crowned Kinglet. Two additional records for the Charleston Mountains. Imhof reported birds from Lee Canyon (7500 to 9000 feet elevation) on October 6, 1951, and Pulich recorded this species in the same area on November 17, 1951. These records supplement those reported earlier by Pulich and Phillips (1951).

Regulus calendula. Ruby-crowned Kinglet. Uncommon winter visitor in brushy areas, arriving on the desert as early as September 26 (1954, Gold Butte area) and remaining as late as April 28 (1951, Las Vegas Wash).

Anthus spinoletta. Water Pipit. Recorded in desert areas from as early as October 8 (1951) by Imhof at Camp Three (4200 feet elevation, 39 miles east-southeast of Beatty, Nye County) to as late as March 31 (1951) in the Pahrnatag Valley.

Bombycilla cedrorum. Cedar Waxwing. Erratic visitors to the desert. Recorded in three localities where mistletoe berries were available in mesquite thickets: in May, 1951—Pahrump Valley on the 19th, Ash Meadows on the 20th, and Pahrnatag Valley on the 23rd. Also noted in Boulder City on October 10 and 20, and November 5 and 16, 1950, June 2 and October 28, 1951; and in mesquite thickets in Las Vegas Valley on January 11, 1952.

Lanius ludovicianus. Loggerhead Shrike. A common permanent resident on all parts of the desert. This is one of the several species which summers on the desert independently of free water supplies. Together with the Ash-throated Flycatcher and Black-throated Sparrow, it is one of the most widely distributed of the desert birds.

Vireo bellii. Bell Vireo. Recorded from the Dead Mountains and the Mohave Valley from March 17 (1952) to as late as August 16 (1951). A record of one bird from Las Vegas Valley, June 2, 1952.

Vireo vicinior. Gray Vireo. Recorded from the desert ranges in summer, from as early as April 28 (1953, Boulder City) to as late as September 3 (1951, Gold Butte area). This species has been noted in the Dead, Mormon, and Clover mountains, on the Tule Desert, and in Las Vegas Valley.

Vireo solitarius. Solitary Vireo. Four records: Potosi Mountain, May 18, 1951 (one bird), and June 28, 1952 (two birds); and Las Vegas Valley, one bird on May 22 and 23, 1952.

Vireo gilvus. Warbling Vireo. Spring and fall migrants on the desert, with spring records extending from April 25 (1952, Las Vegas Valley) to May 20 (1951, Pahrump Valley); fall records from August 14 (1952, Mohave Valley) to October 6 (1951, Boulder Beach). One summer record from the desert, July 27, 1952, at Boulder City.

Vermivora celata. Orange-crowned Warbler. Winter visitor, with spring dates as late as May 24 (1951, Pahrnatag Valley). Fall migrants arrive as early as August 6 (1952, Boulder City). One summer record from Las Vegas Valley, July 3, 1951 (one bird).

Vermivora ruficapilla. Nashville Warbler. One record: one bird in migration, Gourd Spring, Mormon Mountains, September 1, 1951. This is the second record for this species in southern Nevada. It was reported previously from Mohave Valley on May 7, 1934, by Linsdale (1936:106).

Dendroica petechia. Yellow Warbler. Spring and fall migrant: recorded in spring between May 7 (1951, Dead Mountains) and June 2 (1952, Las Vegas Valley), and in the fall from August 5 (1951, Boulder Beach) to September 19 (1938, Boulder City—Grater, 1939b:221). Recorded from the Charles-

ton Mountains as early as April 30 (1931) by van Rossem (1936:47). Phillips identified a bird of the race *D. p. morcomi* taken by Pulich in Mohave Valley on May 3, 1951 (see Linsdale, 1951:242).

Dendroica nigrescens. Black-throated Gray Warbler. Spring and fall migrant on the desert. Spring migrants arrive as early as April 28 (1951, Las Vegas Wash), while fall migrants linger as late as November 30 (1951) in Mohave Valley. Three summer records: one bird, Potosi Mountain, June 28, 1952; three birds, Mormon Mountains, June 28, 1954; and one bird, Boulder City, July 31, 1952. National Park Service personnel reported to Pulich the occurrence of this species in Boulder City on January 14, 1952.

Dendroica townsendi. Townsend Warbler. Three spring records: one bird, Eldorado Mountains, east of Nelson, May 5, 1951; and one bird, Dead Mountains, May 7, 1951, and May 23, 1953. One fall record: one bird, Charleston Mountains, October 22, 1949. These spring records are the first for this species in the lower desert areas in Nevada.

Oporornis tolmiei. MacGillivray Warbler. Widely scattered in the shrubby washes on the desert during spring and fall migration. Spring records are between May 18 (1951, Potosi Mountain) and May 23 (1952, Las Vegas Valley) and fall dates range from August 18 (1951, Eldorado Mountains) to October 12 (1951, Gold Butte area).

Icteria virens. Yellow-breasted Chat. Widespread spring migrant with earliest arrival date of May 3 (1951, Mohave Valley). Three summer records from hot, mesquite bosques; heard in Moapa Valley, June 28, 1952; heard in Mohave Valley, July 19, 1951, and one bird seen there on August 4, 1954. The maximum recorded temperatures in these areas on these dates were 94°F. on June 28, 1952, 110°F. on July 19, 1951, and 102°F. on August 4, 1954. Our latest fall record is for September 17 (1952, Boulder City).

Wilsonia pusilla. Wilson Warbler. Spring and fall migrant. Spring dates range from May 7 (1951, Dead Mountains) to May 31 (1951, Boulder City); fall dates extend from August 13 (1950, Boulder City) to September 5 (1951, Muddy Mountains). Fisher (1893) records an occurrence, April 30, 1891, in the Charleston Mountains. A. R. Phillips identified a specimen taken by Pulich on May 14, 1951, in Mohave Valley, as belonging to the race *W. p. chryseola*.

Passer domesticus. House Sparrow. Common about towns, ranches, and scattered sparingly over the desert areas. One record far removed from human habitation: two females in Willow Wash (3100 feet elevation), Gold Butte area, April 2, 1953, at least 22 miles from nearest known populations of House Sparrows.

Sturnella neglecta. Western Meadowlark. Noted as a common permanent resident in the valleys and sagebrush areas by Linsdale (1936:112), but also found to be common throughout the year on the desert areas, particularly in desert grassland and creosote-bush—bur-sage habitats. Noted in these typical desert habitats in the Kane Springs Wash, Gold Butte, Searchlight and Indian Springs areas, Dead, Mormon and Eldorado mountains, and the Tule Desert.

Xanthocephalus xanthocephalus. Yellow-headed Blackbird. Recorded from the desert valleys from April 26 (1951, Moapa Valley) to as late as August 31 (1951, Meadow Valley). One late fall record: "several" birds, Las Vegas Valley, November 10, 1953. One record outside of the desert valleys: Imhof reported a single male at Camp Three on September 28, 1951.

Icterus cucullatus. Hooded Oriole. One additional record: three birds seen in the cottonwoods at Hyco Spring, east slope of the Dead Mountains, on May 23, 1953.

Icterus parisorum. Scott Oriole. Common summer resident in Joshua tree forests and Mohave yucca areas on the desert ranges from about April 26 (1951, Mormon Mountains) to as late as August 24 (1951, Mule Springs).

Icterus bullockii. Bullock Oriole. Present in the desert valleys and in the cottonwoods about springs in the desert ranges from as early as April 16 (1951, McCullough Range) to as late as September 7 (1951, when a bird was banded at Boulder Beach).

Euphagus cyanocephalus. Brewer Blackbird. Permanent resident in valley areas, occasionally wandering on to the deserts. Recorded at Mountain Springs, May 18, 1951; Gold Butte area, September 3 and October 12, 1951, and September 26, 1954; and Nelson Landing (600 feet elevation), Lake Mohave, February 7, 1951.

Molothrus ater. Brown-headed Cowbird. Scarce summer resident in desert valleys and ranges from about May 3 (1953, Willow Beach) to as late as September 8 (1951, when one was banded at

Boulder Beach). Pulich collected a bird at Potosi Spring on June 28, 1951, which was identified as *M. a. obscurus* by A. R. Phillips.

Piranga ludoviciana. Western Tanager. Summer visitant (nonbreeding) in desert valleys and in brushy washes on the deserts from about May 3 (1951, in the Mohave Valley, and 1952, in the Dead Mountains) to as late as September 8 (1951, Boulder City).

Piranga rubra. Summer Tanager. Summer resident in Mohave Valley from about May 2 (1952) to as late as October 2 (1951). One Nevada record away from the Mohave Valley area, when a single bird was seen at McCullough Spring, in the McCullough Range, on August 22, 1951.

Pheucticus melanocephalus. Black-headed Grosbeak. Spring and fall migrant, being recorded from April 29 (1951, Boulder Beach, by Mrs. Poyser) to June 5 (1951, Dead Mountains), and from August 4 (1954, Dead Mountains) to as late as September 1 (1951, Mormon Mountains). Pulich observed this species on Potosi Mountain on June 27 and 28, 1952, and van Rossem (1936:51) recorded birds as late as September 20, 1930, in the Sheep Range.

Gwiraca caerulea. Blue Grosbeak. Eight summer records: one bird, Potosi Mountain, July 19, 1952; one bird, Meadow Valley Wash, one mile north of Carp, August 8, 1952; Mohave Valley, one bird on August 2 and two birds on August 14, 1952, and one bird on August 4, 1953; Pahrump Valley, August 5 and 6, 1953, and again in the same area on the same dates in 1954. Mrs. Poyser reported this species at Boulder Beach on May 21, 1951.

Passerina amoena. Lazuli Bunting. Uncommon spring and fall migrant, occurring from May 20 (1951, Ash Meadows) to as late as June 28 (1954, Mormon Mountains) in the spring and from August 22 (1951, McCullough Range) to September 17 (1951, Boulder Beach) in the fall. A late record reported to Pulich by Park Service personnel, October 29, 1951, at Boulder City. Pulich found a nest with four young about three days old in a low sagebrush (*Artemisia* sp.) at Potosi Spring on June 28, 1952.

Hesperiphona vespertina. Evening Grosbeak. Three additional records: remains of one bird found in a water tank at Cabin Spring (about 6000 feet elevation) in the Sheep Range, June 26, 1951; two birds, Boulder City, January 5, 1952; and Mrs. Poyser reported this species at Boulder Beach on February 8, 1951.

Spinus pinus. Pine Siskin. One additional record: 20 to 30 birds feeding on Gullion's lawn in Boulder City, May 22, 1951.

Spinus tristis. American Goldfinch. Two additional desert records: two birds at Granite Springs (1400 feet elevation), Dead Mountains, 12 miles southwest of Davis Dam, on March 12, 1951; and one bird at Knob Hill Spring (about 4000 feet elevation), 3 miles south of Nelson, May 6, 1951.

Spinus psaltria. Lesser Goldfinch. Winter and breeding resident, but with no midsummer records available. Dates of occurrence extend from August 14 (1951) to June 28 (1952, both at Boulder City). Pulich observed fledglings in Boulder City on May 20, 1952.

Loxia curvirostra. Red Crossbill. Three winter records: three birds on December 24 and 25, 1950, and a flock on January 15, 1951, all at Boulder City. This species has been previously reported from southern Nevada by Grater (Linsdale, 1951:245) on November 14, 1938.

Chlorura chlorura. Green-tailed Towhee. Uncommon spring and fall migrant, occurring on the desert from as early as April 1 (1953, when a bird was banded in the Gold Butte area) to as late as June 19 (1953, Gold Butte area) in the spring and from September 1 (1951, Mormon Mountains) to as late as November 27 (1952, when a bird was banded in Las Vegas Valley) in the fall.

Pipilo erythrophthalmus. Rufous-sided Towhee. Recorded as a spring and fall migrant through desert areas, from March 5 (1952, Gold Butte area) to April 24 (1951, Mormon Mountains) and from September 26 (1954, Gold Butte area) to November 27 (1953, Virgin Mountains). This species was recorded on Potosi Mountain on July 19, 1952, and in the Mohave Valley on January 31, 1952. A bird collected by Gullion in Willow Basin (3950 feet elevation), Gold Butte area, on April 4, 1953, has been identified at the Museum of Vertebrate Zoology as *P. e. montanus* (no. 130599, Mus. Vert. Zool.).

Pipilo aberti. Abert Towhee. One record well north of usual distribution: a bird seen near Vigo (2500 feet elevation, 5 miles southwest of Carp), Meadow Valley Wash, August 29, 1951. Also, one bird was seen in the desert shrub (3750 feet elevation) 3 miles northwest of Nelson, on May 3, 1951, far removed from its normal mesquite bosque habitat in the desert valleys.

Calamospiza melanocorys. Lark Bunting. Of erratic occurrence in winter and spring. From about May 2 to 14, 1952, flocks were recorded on the desert from the Searchlight area, Las Vegas Valley,

Coyote Wells (2300 feet elevation, Lincoln County), Pahranaagat Valley, Delamar Flats (5000 feet elevation, Lincoln County), and Meadow Valley. Gullion collected an adult male at 3000 feet elevation, 16 miles north of Searchlight, on May 3, 1952 (no. 125717, Mus. Vert. Zool.). This species has been previously recorded on Nevada's southern deserts in April, 1891, by Fisher (1893:108), in February, 1940, by Jewett (1940b:307), and in December, 1948, by Pulich (Monson, 1949:181).

Passerculus sandwichensis. Savannah Sparrow. Six records scattered through the year as follows: "several" birds, Pahrump Valley, August 25, 1951; one bird, Boulder Beach, March 1, 1952; Camp Three, September 28 and October 3 and 9, 1951, reported by Imhof; and one bird collected in Las Vegas Wash on April 5, 1952, by Pulich (identified as *P. s. nevadensis* by A. R. Phillips).

Poocetes gramineus. Vesper Sparrow. Uncommon spring and fall migrant. In spring noted from April 12 (1951, Mohave Valley and the Virgin Mountains) to as late as May 24 (1951, Meadow Valley); in the fall, from August 25 (1951, Pahrump Valley) to as late as October 11 (1951, Gold Butte area). Fisher (1893:85) recorded this species as early as March 10 (1891) in Ash Meadows and Las Vegas Valley.

Chondestes grammacus. Lark Sparrow. Spring and fall migrant, being noted from about April 30 (1951, Las Vegas Valley) to May 24 (1951, Pahranaagat and Meadow valleys) in the spring and from August 8 (1953, Meadow Valley) to about September 10 (1951, Boulder Beach) in the fall.

Amphispiza bilineata. Black-throated Sparrow. Common spring, summer, and fall resident, being absent from Nevada's deserts for not over two months in midwinter, if that long. The earliest spring record is for February 6 (1953, Searchlight area) and our latest fall record is for November 28 (1953, Gold Butte area). However, Grater (Linsdale, 1951:245) reports this species in the Lake Mead area in December. In this area, this species is one of the ubiquitous birds of the creosote-bush and desert shrub environments, being distributed generally independently of available drinking water. Not commonly noted in valley areas, but abundantly recorded from all upland desert areas. Pulich found a nest containing three eggs in a sagebrush near Potosi Spring on June 28, 1952.

Amphispiza belli. Sage Sparrow. Winter visitant on the desert, being recorded from as early in the fall as August 5 (1954, Pahrump Valley) and remaining in the spring as late as June 28 (1954, Mormon Mountains). However, this species was recorded from the Indian Springs area northwest of Las Vegas by van Rossem (1936:56-57) in July, so perhaps it is best considered a permanent resident, at least on the higher desert areas. A bird collected along the Davis Dam Highway (Dead Mountains) by Pulich on November 30, 1951, was identified as *A. b. nevadensis* by A. R. Phillips. Like the Black-throated Sparrow, this species is most frequently seen in the upland desert shrub, but one bird was trapped in a mesquite bosque in Las Vegas Valley on January 17, 1953.

Junco hyemalis. Slate-colored Junco. Three records: one bird, Boulder City, March 24, 1952; one bird, Potosi Spring, March 31, 1952; and one bird at Indian Spring, Virgin Mountains, November 27, 1953.

Junco caniceps. Gray-headed Junco. Two birds at Mule Springs, August 24, 1951; numerous birds in the Clover Mountains, at the head of Pennsylvania Wash (6500 feet elevation, 8 miles northeast of Elgin), August 31, 1951. Recorded several times in winter: Willow Basin, Gold Butte area, April 1, 1953; Township Canyon (5000 feet elevation), in the Virgin Mountains, 9 miles south of Bunkerville, November 13, 1953; and the Charleston Mountains, October 6, and Johnnies Water, November 28, both records by Imhof in 1951.

Spizella arborea. Tree Sparrow. One additional record: "a number" of birds in the Eldorado Mountains, 5 miles northwest of Nelson (3000 feet elevation), on March 13, 1951 (see also, Pulich and Gullion, 1953).

Spizella passerina. Chipping Sparrow. Recorded in the spring from April 25 (1951, Mormon Mountains) to May 19 (1951, Pahrump Valley) and in the fall from August 22 (1951, McCullough Range) to November 3 (1951, Las Vegas Wash). One winter record: one bird, Boulder City, January 13, 1952.

Spizella breweri. Brewer Sparrow. Regular and common spring and fall migrant. This species is abundant on the desert in spring from about March 24 (1952, Boulder City) to May 26 (1951, Meadow Valley) and in the fall from about the end of August to mid-October. Mrs. Poyser reported this species at Boulder Beach on February 27, 1951, and Pulich saw fledglings (and collected one) just out of the nest at Potosi Spring on June 28, 1952.

Zonotrichia leucophrys. White-crowned Sparrow. Common winter visitor in the lower valleys

from as early as September 17 (1951, Boulder Beach) to as late as April 25 (1952, Las Vegas Valley). On the desert ranges early fall appearance was recorded on September 29 (1954, Gold Butte area) and a late spring date of May 3 (1951) was recorded in the Eldorado Mountains. These sparrows linger as late as May 24 (1951) in Meadow Valley.

Zonotrichia atricapilla. Golden-crowned Sparrow. A single bird was taken from a quail trap in Willow Basin (3550 feet elevation), Gold Butte area, 26 miles southeast of Overton, on March 31, 1953 (no. 130600, Mus. Vert. Zool.). This is the first record for this species in southern Nevada and apparently the fourth record for the state (Linsdale, 1951:246).

Zonotrichia albicollis. White-throated Sparrow. Rare fall migrant. One additional record: a single bird seen scratching among the litter under a shrub live-oak (*Quercus turbinella*) in Township Canyon, Virgin Mountains, on November 13, 1953 (see also, Gullion, 1953).

Passerella iliaca. Fox Sparrow. One additional record: one bird seen in the willows at Upper Pierson Spring (4400 feet elevation) in the Gold Butte area, September 29, 1954. Grater (1939b:221) has an earlier record from southern Nevada, "below Boulder Dam," on August 29, 1938; another record was obtained in Boulder City on October 29, 1952, by W. and J. Bromley (Monson, 1953a:31).

Melospiza melodia. Song Sparrow. A permanent resident, recorded from the Mohave and Las Vegas valleys, the Flat Nose Ranch east of Pioche, and Roger's Spring (1500 feet elevation) in the Muddy Mountains south of Overton, all within the range given by Linsdale (1951:246, 247). Also noted in Pahrump Valley on May 19 and 20, 1951, a locality from which this species has not been previously recorded.

DISCUSSION

Most of the birds occurring on the desert areas are restricted to the vicinity of moist valleys or permanent springs or stock-water developments. However, there are a few species whose distribution on the desert seems to be independent of the distribution of drinking water. These are also the species which, if they are seen near waterholes or springs, seem to be there because water attracts their preferred food in greater abundance. These species, when near water, were seldom if ever seen to drink during the course of more than 80 morning quail counts (each five and one-half hours long) at waterholes during midsummer from 1951 to 1954. Included in this list is the Ash-throated Flycatcher, Horned Lark, Cactus Wren, Le Conte Thrasher, Loggerhead Shrike, Scott Oriole, and Black-throated Sparrow.

Some other species which are commonly seen in the type of vegetation produced by surface or underground water (primarily mesquite bosques), but which were not seen to take advantage of available water include the Verdin, Crissal Thrasher, Blue-gray Gnatcatcher, and Phainopepla.

Among the interesting aspects of the occurrence of birds on southern Nevada's deserts are the sporadic invasions of this area by species not normally expected to occur. In this respect the winter of 1950-51 was a particularly rich season on the desert, with several boreal species appearing. Notable among these were the Downy Woodpecker, Clark Nutcracker (in the summer of 1951), Cedar Waxwing, Pine Siskin, and Red Crossbill. The occurrence of these species in this winter is surprising in some respects, for it was an unusually mild winter farther north. The Weather Bureau (1952:144), summarizing Nevada's weather for 1951, says, "The winter season ended as one of the warmest on record with 78% of normal precipitation and just 60% of the usual snowfall." Southern Nevada's deserts were in the grip of a prolonged, severe drought when these boreal visitors arrived.

Other species of sporadic occurrence include the Purple Martin during the summer of 1951, Bendire Thrasher in June, 1954, and the Lark Bunting in May, 1952.

One may wonder just how rare or uncommon some of these desert species really are in an area such as southern Nevada. Prior to our field work many of the areas reported upon in this paper apparently had not been visited by persons interested in the fauna.

Neither Linsdale (1936:14-22) nor Hall (1946:5, 652-669) indicates that the McCullough and Multichrome ranges, the Castle, Eldorado, Virgin and Clover mountains, the Tule Desert or the Kane Springs Wash area had been visited by earlier zoologists, and these same authors show but one or two previous visits by zoologists to the Mormon Mountains (Juniper Mountains of Linsdale, 1936) and the Gold Butte area, and these were probably of short duration.

The foregoing collection of records emphasizes the need for more extensive and prolonged studies of the birdlife on Nevada's desert areas, and particularly the need for widespread and continual collecting. Some areas appear to be especially promising for extensive studies due to their unusual vegetation types. One of these is the McCullough Range northwest of Searchlight which reaches 6996 feet elevation, and which appears to have avifaunal aspects of the Spring Mountain Range, as reported upon by van Rossem (1936) and Miller (1945).

Another area of particular interest is the Dead Mountains south of Searchlight which reach over 5000 feet elevation. These mountains contain an interesting mixture of plants representing elements of the western xeric evergreen forest, the Arizona succulent desert, and the California microphyll desert, as described by Kearney and Peebles (1951:13-15). Here species such as ocotillo (*Fouquieria splendens*), bear-grass (*Nolina bigelovii*), smoke tree (*Dalea spinosa*), and desert lavender (*Hyptis emoryi*) make their only appearance in Nevada. In addition there is an interesting piñon-juniper forest at higher elevations, which includes thickets of hollyleaf cherry (*Prunus ilicifolia*), a shrub of the California Coast Range (McMinn, 1939:196).

A third area needing thorough investigation is the Virgin Mountains south of Bunkerville and Mesquite. This range, which reaches 8064 feet elevation, has much of the vegetation of the western xeric evergreen forest and the Arizona chaparral (Kearney and Peebles, 1951:13-14) of northern Arizona, including at least one clump of Arizona cypress (*Cupressus glabra*). Douglas fir (*Pseudotsuga menziesii*) is reported to occur on the upper parts of this desert range.

The fourth area of particular interest is the Clover Mountains, reaching 7750 feet elevation, which lie south and east of Caliente. These mountains contain extensive forests of yellow pine (*Pinus ponderosa*), as well as extensive thickets of manzanita (*Arctostaphylos pungens*) and Gambel oak (*Quercus gambelii*), these representing a westward extension of the northern mesic evergreen forest (Kearney and Peebles, 1951:13) occurring in the mountains of southwestern Utah and northern Arizona.

It should be apparent that many details concerning southern Nevada's avifauna still remain unknown. However, the present list, supplementing the papers of Linsdale and others, should help to crystallize knowledge of the birdlife of this region and should form a basis for more thoroughgoing investigations in the future.

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