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During ornithological studies in southern Nevada, we obtained noteworthy data on the occurrence and status of several species. Our observations support the suggestion of unstable breeding populations of certain species in the Spring Mountains (Johnson 1965). All records are for Clark County unless specified. Wing and tail measurements are in millimeters. Specimens collected are on deposit in the Biology Museum, University of Nevada, Las Vegas (UNLV) and in the collection of A. M. Rea (AMR), Tucson, Arizona. Additional material from the Museum of Vertebrate Zoology (MVZ), Berkeley, California was examined. We acknowledge the respective curators for making specimens available for our use. We thank Richard C. Banks (RCB) and Allan R. Phillips (ARP) for certain subspecific determinations; all others were by Rea.

Chen rossii. Ross' Goose. In addition to that reported previously (Austin 1970), Austin saw one at Lorenzi Park (Las Vegas) on 23 November 1970 and one on 5 April 1971.

Zenaida asiatica. White-winged Dove. Although this species is regular in the Las Vegas Valley (Banks and Hansen 1970), there are no breeding records away from the Colorado River Valley (Linsdale 1951, Gullion et al. 1959). Young fledged from several nests in Paradise Valley (Las Vegas) during 1969 and 1970.

Asio flammeus. Short-eared Owl. An adult female (AMR, ovary 7  $\times$  12 mm, no fat, in prebasic molt) was found freshly dead by Rea and A. W. Stevens, 3.2 km N of Goldfield, Esmeralda County, on 7 September 1969. Another adult female (UNLV, ovary  $6 \times 13$  mm, light fat, in prebasic molt) was found dead in Las Vegas, on 27 September 1972. These are the only fall records for Nevada and appear to be the earliest for the southwest. Previous southern Nevada records are for late winter or spring (Fisher 1893, Hayward et al. 1963, Austin and Bradley 1968). Early Arizona records were for late September (Phillips et al. 1964). Gilman (1935) recorded a specimen 144 km S Furnace Creek Ranch, Death Valley, Inyo County, California, on 8 December 1933. The nearest breeding location appears to be in the Sierra Nevada, Mono County, California (Dixon 1934, Rowley 1939). The stomach of the first specimen contained the remains of a Perognathus longimembris and a Neotoma sp. Aeronautes saxatalis, White-throated Swift. John-

Aeronautes saxatalis. White-throated Swift. Johnson (1965) assigned the southern Nevada population to the nominate race on geographical grounds. Three specimens (two males, 12 August 1966, Spring Range; one female, 13 August 1966, Virgin Mountains, all UNLV) confirm this. Their wings (flattened) measure 128.55, 132.0 and 136.5+, respectively.

Stellula calliope. Calliope Hummingbird. Two (UNLV, in alcohol, heavy fat, unsexed) collected in Lee Canyon, 2400 m, Spring Range, on 22 July 1969 are the first fall records for southern Nevada.

Empidonax difficilis. Western Flycatcher. This species was reported to breed in the Sheep Range (Johnson 1965), but no definite breeding records exist for the Spring Range. At least three pairs were on territories in Deer Creek Canyon, 2300 m, Spring Range, in June 1966, and a pair was found in Lee Canyon, 2460 m, in July 1964. Two birds from Deer Creek (31 May 1966, male, left testis  $5 \times 4$ mm, 10.9 g, no fat; 21 June 1966, female, largest ovum 9 mm, 13.0 g, no fat) and two from Clark Canyon, 2500 m, Spring Range (14 June 1961, female, 10.8 g; 20 June 1961, male, 12.7 g) are of the race hellmayri (all UNLV). Our lowland specimens are all E. d. difficilis.

Contopus sordidulus. Western Wood Pewee. Johnson (1965) followed Miller et al. (1957) in submerging the dark, northernmost race saturatus Bishop and the paler southwest race veliei Coues in "richardsonii," contra Phillips and Parkes (1955). This action, in our opinion, does violence to the broad outlines of geographical variation in the species. We have reexamined all Spring Range specimens (MVZ, UNLV, AMR) taken in June and find them to be veliei, as is a single lowland migrant (female, Corn Creek, Desert National Wildlife Range, 17 May 1962).

Contopus borealis. Olive-sided Flycatcher. We concur with Todd (1963) in recognizing majorinus (Bangs and Penard), a large race with a more restricted range than given by its describers. The territorial male (MVZ 150415) taken by Johnson (1965) on 20 June 1963 in Lee Canyon is majorinus (wing chords 112.5 and 114.0, tail 74.1). Three other specimens seem best referred to this race (UNLV B-560, 21 June 1966, Deer Creek Canyon, male, testes  $5 \times 10$  mm, little fat, 31.3 g, wing chords 109.5 and 111.2, tail 74.8; MVZ 150414, 13 June 1963, Sheep Range, female, very fat, wing chord 104.9, tail 72.0; MVZ 150413, 12 June 1963, Sheep Range, male, very thin, testes  $8 \times 3$  mm, wing chord 111.6, tail 73.4). Majorinus has not been reported from Nevada previously.

Tachycineta thalassina. Violet-green Swallow. Austin saw one individual near Henderson on 30 December 1968, the first winter record for the state.

Stelgidopteryx ruficollis. Rough-winged Swallow. Previous Nevada specimens have been assigned to S. r. serripennis by Linsdale (1951) and Hayward et al. (1963). A male (UNLV, heavy fat, 16.2 g) of the race psammochroa was taken near Henderson on 7 April 1965. Phillips et al. (1964) indicated that this is the expected breeding race in southern Nevada. Austin saw one bird at close range near Henderson on 30 December 1968, apparently the first winter record for the state. Petrochelidon pyrrhonota. Cliff Swallow. Three females, all P. p. tachina, were examined (UNLV, 15.2 and 13.2 g, 17 May 1962, Corn Creek; AMR, ovary  $4 \times 6$  mm, oviduct enlarged, extensive brood patch, 19.9 g, wing chord 100.7+, 4 June 1970, Colorado River below Davis Dam). Austin has observed several colonies along the river and the shore of Lake Mead. This race has not been reported previously for Nevada although Phillips et al. (1964) indicated breeding along the Colorado River in Arizona.

Cyanocitta stelleri. Steller's Jay. On the basis of two fall specimens (UNLV), we concur with Phillips (1950) and Johnson (1965) that percontatrix van Rossem is indistinguishable from macrolopha (sensu Phillips et al. 1964).

Gymnorhinus cyanocephalus. Piñon Jay. Three specimens from the Spring Range evidently are representative of the breeding population (UNLV, adult male and juvenal female, 3 June 1966; adult female, well developed brood patch, ovary  $4 \times 10$  mm, 8 April 1966). As the race assigned to Nevada is based on bill length and culmen/tarsus ratio (Brodkorb 1936) we do not advocate recognition of races in this species until series of specimens are available and until the amount of seasonal variation in bill length is determined (Davis 1954). Spring Range specimens are indistinguishable from seasonally comparable specimens (AMR) from western New Mexico.

Sitta canadensis. Red-breasted Nuthatch. Johnson (1965) suggested that this species may breed in the Spring Range. Austin did not record it in four summers of intensive field work there although he has numerous records of transients.

Sitta pygmaea. Pygmy Nuthatch. Van Rossem described a race, canescens, from the Spring Range (1931), and a race, melanotis, from the Chiricahua Mountains, Arizona (1929). Of the four races, he (1936) considered the former the least distinctive. We have collected fresh-plumaged material from both areas and compared it to van Rossem's types and type series. Only the type of canescens can be distinguished from the series. Interestingly, two specimens from the Spring Range, 15 and 25 August 1932, are marked "melanotis" and indeed are darker on the head than even the type of melanotis. For these reasons, we cannot consider canescens a valid race.

Certhia familiaris. Brown Creeper. Van Rossem (1931) rather briefly described a pale race of this species from the mountains of southern Nevada. Phillips et al. (1964) considered it a synonym of montana. Rea compared 45 mostly fresh fall-winter specimens from the southwest, including the type, type series, recent topotypes of *leucosticta*, and specimens of A. R. Phillips.

Leucosticta is a distinctive race with the greatest amount of white in the dorsum diffusing over most of each feather. Montana has a narrower central white streak with dark borders. The background color of montana is Argus Brown (capitalized color names from Ridgway 1912) or somewhat darker; in leucosticta the background color ranges from Sudan Brown to Antique Brown and covers a much reduced area. Rump color usually separates the races: leucosticta is Ochraceous-Tawny tending toward Ochraceous-Orange; montana is distinctly darker and richer, between Tawny and Amber Brown.

Five fall (2 September to 23 October) specimens (AMR) from the Bradshaw Mountains near Prescott, Yavapai County, Arizona, are variously intermediate between *leucosticta* and *montana*. This perhaps indicates a more extensive range for *leucosticta* than that given in the AOU Check-list (1957).

Catharus guttatus. Hermit Thrush. We find both spring (5 June) and fall (8 September, no fat) specimens (AMR) from the Spring Range indistinguishable in size, color and spotting from Arizona auduboni and therefore follow Phillips (1962) and Aldrich (1968) in considering "polionota" a synonym.

Catharus ustulatus. Swainson's Thrush. Four spring specimens (UNLV) obtained in Clark County were • determined by Banks and Phillips. One female (12 May 1967, Pine Creek Canyon, Spring Range) is oedicus. A female (16 May 1962) and a male (18 May 1968) from Corn Creek are ustulatus. A second female from Pine Creek Canyon (12 May 1967) was called ustulatus by Banks and oedicus by Phillips. We believe it is nearer the former (darker) subspecies.

 $\hat{Myadestes}$  townsendi. Townsend's Solitaire. This species was reported to breed in the Spring Range by van Rossem (1936) and Johnson (1965), but Austin did not find it. Records between 23 March and 9 September include only two observed in Clark Canyon, 2600 m, on 19–21 August 1974, and a specimen (UNLV) taken there at 2540 m, on 16 June 1961 (breeding?). In most winters, the species is rare but it was relatively common in 1966–1967.

Regulus satrapa. Golden-crowned Kinglet. Austin saw two males at Overton on 8 December 1968. A female (UNLV, 5.9 g, light fat) was taken on 8 November 1968 near Henderson. The latter is of the race *R. s. satrapa*. A male (UNLV, 5.4 g, moderate fat) taken 26 October 1966 in Lee Canyon, represents the western race apache (both ARP determinations). The nominate race has not been reported previously from Nevada. Olivaceus, a race from the Pacific northwest coast, should be removed from the Nevada state list as specimens previously referred to this form are apache (or amoenus, if recognizable).

Bombycilla garrula. Bohemian Waxwing. Prior to 1966 only two reports of this species in southern Nevada were published (Grater 1939, Monson 1952). Austin saw a single bird at Corn Creek on 22 December 1963. In February 1966, a flock of 200 birds was reported for the Virgin Mountains (Snider 1966). From February to May 1967 and during the winter 1968-1969, extraordinary numbers were observed in the Las Vegas Valley and surrounding areas. The first record for 1967 was a flock of approximately 2000 birds in Las Vegas on 14 February. From censuses of small portions of the city, Austin estimated that in March at least 15,000 birds were in the Las Vegas area alone. One flock contained 2132 birds. Flocks of over 100 birds were seen in the Spring Range. Numbers declined during April and the last birds were seen on 4 May. The first birds in 1968 were seen on 16 November in Overton (flock of 75). Numbers increased to an estimated 10,000-12,000 birds in Las Vegas Valley in December. The last birds were seen in mid-April. Main food items in 1967 were elm (Ulmus sp.) buds, Pyrocantha berries and, in the mountains, Juniperus berries. During 1968, mistletoe (Phoradendron sp.) berries also were eaten extensively.

Vireo bellii. Bell's Vireo. This species was reported as a summer resident in the Colorado River Valley (Gullion et al. 1959). Additionally, it bred in the mesquite bosques (= thickets) in Paradise Valley during the summers of 1967–1969. One nest was found. Vermivora virginiae. Virginia's Warbler. This species is probably another irregular breeder in the mountains of southern Nevada. It was reported breeding by van Rossem (1936) and Johnson (1965). Austin found pairs on territories in the Spring Range during the summers of 1961 and 1967 but not in 1962, 1964 or 1966.

Dendroica petechia. Yellow Warbler. A bright, apparently male specimen (UNLV, originally labeled female) of the race morcomi, taken in Hidden Forest, 2300 m, Sheep Range, on 22 October 1961, is one of the latest southwestern records. The last definite date for a probable transient (excluding two wintering birds) of this race for Arizona was 7 October (but possibly 21 October, Phillips et al. 1964). Austin's latest sight record for the species in southern Nevada is 3 October. Also, to date, he has been unable to locate the breeding Colorado River Valley population reported in Linsdale (1936).

Dendroica striata. Blackpoll Warbler. Banks and Lewis (1969) reported the first specimen from Nevada. Austin watched a male at close range for 15 min at Tule Springs Park (21 km NW Las Vegas) on 2 May 1966.

Seiurus noveboracensis. Northern Waterthrush. Banks and Lewis (1969) reported the first Nevada specimens of this species. Recently, Austin has found it to be a rare transient in Las Vegas Valley with 5 spring records from 17 April (1974) through 18 May (1968) and 13 fall records from 29 August (1975) through 18 September (1975).

Icterus galbula. Northern Oriole. Of four adult males (UNLV) taken the first week of June in the Las Vegas Valley, three are rather small examples of the race parous (wing chords 94.9, 95.7, 97.0). A Corn Creek specimen, however, seems intermediate toward bullockii (wing 101.3, tail 80.3+). Parous has not been reported previously for the state and the status of the upper Colorado River birds has been questioned (Phillips et al. 1964). A fifth adult male (AMR) taken on 4 June 1970 below Davis Dam, in San Bernardino County, California, is parous (wing 97.4, tail 76.4).

Molothrus ater. Brown-headed Cowbird. The relationships among the three subspecies of cowbirds in the southwest are in need of a detailed study (Phillips 1968). Four spring specimens (UNLV) are available from Corn Creek. An adult female (ovary  $11 \times 5$  mm, minute ova, no fat, 21 April 1966) is artemisiae in color and size (wing 100.3, tail 67.5). Another adult female (ovary 7  $\times$  4 mm, moderate fat, 29 April 1967) is the size of an artemisiae (wing 99.3, tail 69.4) but is exceptionally dark with a whitish throat and broader mandible suggesting ater. An immature female (30 April 1967) is the size of obscurus (wing 92.5, tail 61.8). An immature male (2 May 1963, 33.7 g) is obscurus (wing 103.35, tail 71.3). Two adult males (AMR) were taken on 4 June on the Colorado River below Davis Dam. One (39.0 g, slight fat) is obscurus (wing 102.7, tail 72.5); the other (42.8 g, slight fat) is perhaps intermediate toward artemisiae (wing 105.7, tail 74.8, bill from nares 12.8).

Piranga rubra. Summer Tanager. Breeding birds from the southern tip of Clark County are large like *cooperi*. Two August specimens (ARP) from 2.4 km N of the California line, opposite Ft. Mohave, seem to be *ochracea* (immature female) or approaching (immature male) this unusually distinctive race described from adjacent Arizona (Phillips 1966). Adult males (UNLV), however, cannot be distinguished from *cooperi*. Guiraca caerulea. Blue Grosbeak. There is some question as to the breeding race of this species in southern Nevada. Linsdale (1936) indicated that G. c. salicaria was the common summer resident but reported one specimen of the race interfusa. Phillips et al. (1964) indicated that salicaria was the breeding bird of the Colorado River Valley, and Hayward et al. (1963) reported a specimen of interfusa from the Nevada Test Site. Additionally, an adult male (UNLV, 7 June 1966, testes  $11 \times 7$  mm, 28.5 g, no fat) taken near Henderson, is interfusa.

Spinus pinus. Pine Siskin. Many pairs were seen in the Spring Range on 5 June 1970. Two worn females (both mated) were taken (AMR). One represents S. p. pinus (wing 70, tail 44.9+, heavily streaked, several ova to 2 mm, oviduct 3 mm wide, 10.2 g), and the other appears to be S. p. macropterus (wing 73.4, tail 46.4+, finely streaked, 7 mm yolk in ovary, egg in upper oviduct, 13.9 g). On 4 June 1970, a dark, bright-plumaged adult female (AMR, ovary  $3 \times 3$  mm, ova to 1 mm, no ruptured follicles, light fat, 14 g) was collected from a pair of birds feeding in Acacia greggii south of Davis Dam along the Colorado River. It appears to be near the maximum size for the nominate race (wing 72.7, tail 46.2, determinations by ARP). Two apparently breeding specimens (MVZ) reported by Johnson (1965) from the Sheep Range are both pinus (male, 11.6 g, wing 71.35, tail 44.7; female, 11.5 g, wing 67.6, tail ca. 43.8).

Pipilo erythrophthalmus. Rufous-sided Towhee. Johnson (1965) reported all towhees as montanus. On reexamining two of the females (MVZ), we find one (150740, adult, 36.4 g, moderate fat, brood patch, ova 3 mm) taken on 18 June 1963 in the Spring Range, to be a typical curtatus in every respect.

The occurrence in the Spring Range of two races of this and the preceding species during the breedseason is particularly interesting in light of the general instability of the breeding avifauna of the area (Johnson 1965 and examples noted herein). The Spring Range lies between the ranges of the three races of *P. erythrophthalmus*. Because of this and the relatively low population densities, the racial status of the breeding population is significant and should be examined periodically (Parkes 1955).

Spizella atrogularis. Black-chinned Sparrow. Johnson (1965) did not find this sparrow in the Spring Range. Van Rossem (1936) reported a specimen. Austin found it breeding locally in chaparral stands in Kyle Canyon, Spring Range, in 1966, 1967, 1970, but not in 1962 or 1964. A male (UNLV, 11.0 g, no fat) was taken in Kyle Canyon on 22 April 1966. It is of the race evura (wing 64.7, tail 72.4).

Zonotrichia querula. Harris' Sparrow. Austin saw three immatures at Gilcrease Ranch (16 km NW Las Vegas) on 22 December 1968, and one in Dry Lake Valley, north of Las Vegas, on 29 November 1974. These supplement previous records (Austin 1969).

Melospiza melodia. Song Sparrow. A female (UNLV, largest ovum 3 mm) taken 1 June 1966 from Henderson Slough, is *fallax* rather than *saltonis*. Apparently, this site is the southernmost breeding locality for this subspecies in Nevada.

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