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AN ANNOTATED CHECKLIST OF SPRING AND EARLY SUMMER BIRDS
FOR THE NORTHEASTERN QUARTER OF THE CHIRICAHUA MOUNTAINS
OF SOUTHEASTERN ARIZONA

BY BRUCE G. ELLIOTT

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NORTHEASTERN QUARTER OF THE CHIRICAHUA MOUNTAINS OF SOUTHEASTERN ARIZONA

By Bruce G. Elliott

The following list of bird species was compiled as a result of field work effected between the first of March and the 31st of July, 1961. Hearsay observations will be so indicated or confined to a Hypothetical List (Appendix A). The purpose of this paper is to present a more recent synopsis of the occurrence and distribution of migrant and breeding species in the area under discussion, garnered from as many of the 'typical' habitats or bio-communities present as possible. The project area, which is triangular in form, extends from the New Mexico State Game Refuge at Cienega Lake south to Apache, Arizona and then covers the intervening desert between these two points west to the mouth of Cave Creek Canyon near Portal, Arizona continuing up the canyon to the peak region. The airline distance from Cienega Lake to Apache is approximately twenty-seven miles; from either one of these two points to Portal about sixteen air miles. From Portal to Rustlers Park is an airline distance of nine miles and within the confines of Cave Creek canyon and its tributary branches, the study area varied in width from a few dozen yards to about one quarter mile. The study area includes four plant community types; the desert grassland ranging from 3200 feet to its intergradation with the chaparral or oak-woodland belt at about 5000 feet. The latter extends from 4000 to 5500 feet, but varies in its extremes as do all these communities due to the rugged contours of the range. The piñon-juniper association is generally defined as in effect between 5500 and 7000 feet. The Douglas fir-yellow pine belt extends from 5500 to the peak area and contains what is sometimes called a "Hudsonian Zone" element in the form of fir forest on the north-facing slopes of the highest peaks. Cave Creek, for most of its length, has a luxurious and varied riparian growth. For detailed information pertaining to this area, see the brochure of the Southwestern Research Station (Revised:57). A map located on page 44 will assist the reader in self-orientation of the localities discussed.

March, April and May found the author in the field from four to eight hours daily, usually in several different communities. During June and July less time for field work was available and this was focused on distribution of breeding species and nesting dates. A tour of ecologically similar canyons in the neighboring ranges was made for comparative purposes from 26 May to 2 June of this year. Identifications are based upon field experience totaling fourteen months of the last six years in this area. With the exception of a few individual specimens, all identifications were by sight, effected as cautiously and accurately as experience in this area would permit. Trinomials are avoided except in those cases where a form has morphologically diagnostic field characteristics or from specimens that were identified by qualified taxonomists. Observations that appeared of a doubtful nature were re-checked as carefully as possible with available literature and/or the collection of the University of Arizona. Numbers of large flocks are estimates in which the author attempted to be conservative, but accurate.

In addition to the study area mentioned above, a number of additional sightings are included of forms that quite possibly, due to the proximity of the observation to the outlined study area, occur in this location and thus merit enclosure to give a more complete picture of the potential avian population. In order to simplify the text, locations are keyed for use with the map. Comments other than those indicating identification are the author's opinion based upon his interpretation of a situation or actions of the subject being discussed.

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Mrs. Earl Kirtwood, Summerland, California; Mr. and Mrs. Leon Wiard, Cheyenne, Wyoming; Mr. James Bialek, Phoenix, Arizona; Dr. Joe T. Marshall, Jr., University of Arizona; Mr. Jay Cole, Wesleyan University, Middletown, Connecticut; and Dr. Allen E. Phillips, Universidad de Mexico. Special mention must be made of Dr. John Davis of the Francis Sims Hastings Natural History Reservation, Carmel Valley, California and Mr. Patrick J. Gould, University of Arizona for their invaluable advice on the preparation of the paper and for many important comments compiled from their own notes of field work in this area. Finally, the author wishes to express his deepest gratitude to Dr. Mont A. Cazier, former Director of the Southwestern Research Station of the American Museum of Natural History, Portal, Arizona, who was so generous and helpful in countless ways including suggestions and other assistance regarding this survey, and to both him and his wife for their personal hospitality and kindness during the author's stay at the Station.

Bruce G. Elliott

Revised Edition; 10 March 1964
Mexico City, Mexico

Additional information pertaining to field observations within the study area described above, and not available to me in Mexico City during the 1964 revision are notes compiled by Cazier and his associates during the period of 1956 thru mid-1957. These latter data are filed in the Ornithology portion of the Southwestern Research Station laboratory in the folder entitled "Chiricahua Birds - Elliott" Certain May 1982 additional data are noted marginally on this copy.

Bruce Elliott
May 29, 1982

Podilymbus podiceps: PIED-BILLED GREBE. A pair on the pond at Cienaga Lake on 4 May in company with a Coot (Fulica americana). Probably regular in migration on cattle tanks and storage ponds.

Ardea herodias: GREAT BLUE HERON. One flushed from the 5.8 tank during March by Cazier. Four were found at Cienaga Lake on the 10th and 12th of April. When not molested, they seem to prefer taking a stand in the branches of the willows that border the tank. They were not present at this location after the end of May. None are known as breeders here, but seem to be a regular transient.

Nycticorax nycticorax: BLACK-CROWNED NIGHT HERON. See Hypothetical List.

Anas diazi: MEXICAN DUCK. On 10 and 12 April, four individuals were found at Cienaga Lake. On 30 April, seven individuals were present with two pairs breeding by the middle of June. They were the wariest of the waterfowl encountered at this tank, flushing out long ahead of the other less suspicious species of ducks, teal and coot. On Sundays, when this tank is used by local residents as a fishing area, the ducks retired to the 5.8 tank although they seemed highly nervous at this confined and unprotected location. Identification to this species was made on the basis of the double-bordered speculum although the securing of specimens would probably show marked dilution of the "species" due to hybridization.

Anas carolinensis: GREEN-WINGED TEAL. On 10 March, two drakes and three hens appeared at the 5.8 tank. On the 13th, only the two hens remained. They were seen to feed on snails that occurred in profusion along the pond bank. On one occasion, two of the hens, instead of swimming to the far end of the tank to avoid close contact with the author, climbed the bank and took cover in clumps of grass in the manner of snipe, not flushing out until the author almost trod

of grass in the manner of a snipe, not flushing out until the author almost trod upon them. They were forced to waddle hurriedly down to water to achieve their take-off, seemingly unable or unwilling to do so from land.

Anas cyanoptera: CINNAMON TEAL. A male and female at Cienaga Lake on the 10th of April. Extremely unwary, they permitted an approach of a few yards and then swam away in a most liesurely fashion, making no motion to take flight in contrast to the other waterfowl on the pond at the time.

Nareca americana: AMERICAN WIDGEON. Three drakes and a hen at Cienaga Lake on the 10th of April. Hens were much less shy than drakes. On 18 April, 14 Widgeon were assembled on the pond, four of them hens. All feeding was done by dabbling below the water surface with no attempt to utilize the grain put on the dike-top by the New Mexico State Game Commission.

Cathartes aura: TURKEY VULTURE. A few remain in resident status throughout the winter. First noted as a group of five over Sunny Flats on the 26th of March. Common over both the canyon where they are most often seen in groups, and as single birds over the desert. Individuals apparently looking over nesting sites on the cliffs west of Barfoot Park on the 26th of April. Excrement stains along cliff-tops, especially in the wind cave-riddled palisades above Sunny Flats indicate long-standing roost areas here and probably nesting sites. Up to sixty birds seen hovering above these cliffs at twilight during May and April.

Accipiter gentilis: GOSHAWK. Seen by Cazier at San Simon ford on 22 March. Another observation was made of a male at the junction of U.S. 80 and the Portal road on 30 March. On 3 April, two birds were seen some distance apart on power poles along U.S. 80 between Douglas and Fodeo. In addition to this group of sightings, a streaked immature was seen perched on a horizontal limb over a small

pool in East Turkey Creek on 23 June. No sign of nesting action was noted although there is a proposed race, *A. g. apache*, that is said to occasionally breed in this quarter of Arizona, its status not yet fully determined as different from *A. g. atricapillus*.

Accipiter striatus: SHARP-SHINNED HAWK. A good hearsay record from Pett in Pinery Canyon on the west side of the range on 23 April; Pett, Abbot and the author finding another near Portal on the 26th of April; a final sighting that was probably the same bird at the former location, this on the 27th.

Accipiter cooperii: COOPER'S HAWK. Of regular occurrence in riparian, four pairs being found along five miles of Cave Creek from Portal Ranger Station to a point $\frac{3}{4}$ of a mile above the Research Station. Young are hatched by the middle of June, usually three, one nest with two. Exact ascertainment of territories was possible because the first and third pair (from the canyon mouth) were adult-plumaged birds while pairs two and four were in streaked sub-adult dress. The latter birds seem to have more confined territories although there is much overlap in flight hunting with pair four (sub-adults) having the nest with only two eggs. These hawks have been seen harassing Red-tailed Hawks (*Buteo jamaicensis*) but apparently only for play. On the other hand, Red-tails at Guadalupe Canyon in the Peloncillo Mountains pursued and roughed-up a Cooper's Hawk that appeared in the vicinity of their nest. The *Accipiter* is quite bold, one hunting from the weather station recording box in the Station yard, ignoring all but the most proximate approach. One note of interest concerns a very young bird seen in flight over Horseshoe Canyon, south of Portal on the 10th of May. It was obviously not long out of the nest from the appearance of the rectrices and primaries and from its incompetence at flight. This would seem to indicate a very early breeding date

for one pair. Stellers Jays (Cyanocitta stelleri) conjure a perfect imitation of this hawk's call which almost invariably lures in one of the raptors from near-by.

Buteo jamaicensis: RED-TAILED HAWK. A few pairs along the canyon entrances, a casual wanderer at higher elevations. The early Spring birds are more typical of the "Fuertesí" type and move about much more in their hunting than the latter arriving breeders of the "Calurus" race. On 3 April, one of the latter type was observed level with the Barfoot Park fire tower at 8823 feet, the first sighting of this race for the season. On 25 March, a Red-tail was observed in very unusual behavior, standing on a large limb which inclined outward and downward from an oak near Portal Ranger Station. The buteo was hitching itself backward down the limb, like a Creeper in reverse, apparently picking some sort of bark insects from cracks in the limb. One pair was found nesting in a small indentation in a sheer cliff above Idlewilds camp ground. On May 3, incubation was still in progress. The male would supply food to the female in a spectacular manner by flying rapidly past while the female rose from the nest executing a complete verticle circle. At the apex of her loop, the male flying about three yards above her would 'throw' the prey, usually a cotton-tail or ground squirrel which the larger female would deftly catch from mid-air and drop back down on the nest. Young Red-tails were observed on the side of the nest on the 16th of May. These birds were gone by the 15th of July.

Buteo swainsoni: SWAINSON'S HAWK. The first sighting on a pair that nested in a Sycamore at the San Simon ford on 7 April was continued daily as the birds worked to complete their nest. This was done about the first of May. Copulation was observed twice within ten minutes on May 7th, both attempts apparently successful. On 13 June, Mr. Marty Mortenson ascended to the nest and found three downy young

with which he procured two of them, for the purpose of raising them for the Sonora-Arizona Desert Museum at Tucson. At this time, the author estimated them to be about four to eight days old. Although kept in an incubator and hand-fed regularly, the older bird died on the 19th, the second on the 20th. This hawk is sparsely, but regularly distributed on the desert.

Buteo albonotatus: ZONE-TAILED HAWK. See Hypothetical List.

Buteo lagopus: ROUGH-LEGGED HAWK. A very few sightings for this form recorded over the San Simon valley during the Spring. One dark and one light phase individual each policed a section of U.S. 80 below Podedo for carrion every morning. One dark phase adult was found sitting on a yucca near the mouth of Horseshoe Canyon on the 10th of May, kept to his perch by a pair of Western Kingbirds (Tyrannus verticalis) thus permitting the author to approach to within a few yards before the raptor grudgingly flew to another perch a bit further off, pursued all the while by his tormentors. The bird can best be classified as uncommon in early Spring, leaving prior to May.

Buteo borealis: FERRUGINOUS HAWK. On 14 March, the author found a light phase individual in flight over the Portal road near the 5.8 tank. About dawn on 25 April the author with Bett and Abbot watched another individual in flight east of Portal. This hawk is uncommon in winter and probably not present in Late Spring and Summer.

Buteo nitidus: GRAY HAWK. On 1 April, while setting up a tripod scope for observing waterfowl at Cienega Lake, a member of this species alighted over the authors position and watched him intently, displaying much curiosity for some length of time. It was quite fearless and seemed to welcome a careful scrutiny in return. The Gray Hawk is decidedly a rare bird in the comparatively high, xeric San Simon valley.

Aquila chrysaetos: GOLDEN EAGLE. Two immature birds regularly used adjoining power poles for perches along U.S. 80 during March and April, disappearing about 1 May probably to nest or at least seek mates, higher in the mountains. An adult, large enough to be an old female, was found at Barfoot Park on the 25th of April while a younger bird was seen by Rett, Abbot and the author on the 26th. 28 May found a young bird soaring over the Station area. The author cannot help but comment on the apparent scarcity of these giant raptors during the (1' season. During previous visits, both summer and winter, these birds were regularly found soaring along the ridgeline of the range, but the sightings during this study period have been dismally few. A possible explanation is afforded by the finding of a dead immature with its feet torn away from a pole trap, near Rodeo. These traps are set by certain local ranchers who claim that the eagles carry off their young calves! It is the authors understanding that Arizona recently put this species on the protected list and as such, it should be safe-guarded, not slaughtered by uninformed or malicious morons.

Circus cyaneus: MARSH HAWK or HARRIER. During March, a male hunted the desert near Portal every day. In April, he was replaced by a female which remained until about the 25th. Harriers were never noticed to take anything other than insects (although of course they do). This is the only species of raptor that would cause the Loggerhead Shrike, (Lanius ludovicianus) to desert its bushtop look-out posts and seek cover although the latter have been seen maintaining such perches in close proximity to Red-tails and Swainson's Hawks. Possibly the Harriers habit of hunting close to the ground with its more erratic and thus presumably more aggressive or threatening flight movements were more intimidating to the Shrike. One male was noted at Rodeo on 10 May, another south of Elfrieda (west side of the range) on the 12th of May, a rather late date for this species in this area.

Pandion haliaetus: OSPREY. At Cienaga Lake on the 10th of April, an interesting sighting of this extremely uncommon migrant in our area. A light touch was provided by the Fish-hawks frantic efforts to take to the air at the authors appearance, this in the face of an extremely strong windstorm which swept him swiftly back into the branches of his previous perch with halarious results. Finally struggling free, it hovered over the author in the face of the wind for some time inspecting him and then flew off to the south. There is one previous notation of this specie in Marshall (57) who lists it as "migrant at Lake, 1; Chiricauhua, April 14, 1952", which I interprut to mean Rucker Lake in the south end of the range. It is decidedly a rare bird in the San Simon valley.

One observed by BGE + 18
Additional observations on State Line
Road May 29, 1952.

Falco mexicanus: PRAIRIE FALCON. The authors party came upon one perched on a fence post near the mouth of Horseshoe Canyon on 10 May. Uncommon on the desert and near the foothills.

Falco peregrinus: PEREGRINE FALCON. One bird watched flying over Rustlers Park from the direction of the Sulphur Springs valley, the observation from Barfoot Fire Tower on 17 May. It has not been seen since. The author was in company with Phillips when the latter discovered a Peregrine in the Sulphus Springs valley near Doz Cabezas on December 16th, 1955. This species is rare, but may nest occasionally in the range when Band-tailed Pigeons (Columba fasciata) are plentiful.

Falco sparverius: SPARROW HAWK. Plentiful on the desert during April, a pair resting at Cienaga Lake on the 12th of April. Another pair were found feeding young on 26 April at Rustlers Park, the nest being an abandoned cavity of a Flicker (Colaptes cafer) in a pine snag amidst dense timber. Young were out of the latter nest on the 13th of May. The species is seldom seen after May.

Callipepla squamata: SCALED QUAIL. Fairly common on the desert up to and around Portal.

Loophortyx gambelli: GAMBEL'S QUAIL. Present in large numbers from just above Portal down into the desert. Parents with downy young observed about the first week in June.

Crytonyx montezumae: HARLEQUIN QUAIL. See Hypothetical List.

Meleagris gallopavo: TURKEY. The introduced race, *M. g. merriami*, appears to be reasonably successful as the birds are evenly distributed throughout the range, although more conspicuous before the summer influx of tourists and campers during which time the fowl seem to take to more isolated areas. Mostly found in the peak area around meadows like Rustlers Park, yet there are a number of birds at the Station during the winter, individuals having been noted at the garbage dump as of 25 July. Our party found two gobblers displaying for a group of seven hens at Barfoot Camp Ground on 25 April, the birds ignoring our presence while we were in our vehicle only a few feet away.

Fulica americana: AMERICAN COOT. A single bird with four american Widgeon and a Pied-billed Grebe at Cienaga Lake on the 21st of April.

Charadrius vociferus: KILLDEER. Regular about the desert tanks in the Spring, present in large numbers at Cienaga Lake during early April. One pair nested at the 5.8 tank, eggs apparently laid by the 24th of April.

Canella gallinago: COMMON SNIPPE. An individual appearing with other shore-birds, was found at the 5.8 tank from the 12th to the 17th of April. In fed by probing, ignoring the snails on the bank. In contrast with the flush-and-aerial-escape of the other shore-birds when disturbed, the snipe resorted to a 'freeze' even when clearly exposed on the mud bank. It was the only form present that did not make directly for another tank when finally forced to take wing, but almost immediately descended into the nearby desert and walked back to the tank, usually appearing in its former location within ten to fifteen minutes.

Actitis macularia: SPOTTED SANDPIPER. An unusual appearance for this specie at the Station in the stream bed behind the laboratory on the 15th of March. Ident-

fied by the author on the 16th, the last occurrence date for this location.

Another sighting for this specie was made on 6 April at the 5.8 tank with infrequent sightings here until the 23rd. The recording of this specie from the Station is quite interesting, both the altitude and habitat conditions being rather unusual. While at the Station, the bird spent its time hunting under small stones below the shallow water surface.

Erolia bairdii: BAIRD'S SANDPIPER. A single bird, with the two below-listed species, at the 5.8 tank on the 24th and again on the 26th of April.

Erolia minutilla: LEAST SANDPIPER. Three individuals on the 25th of April at the 5.8 tank. This date found the largest concentration of shore-birds recorded during this survey, comprising these three individuals, three Spotted Sandpipers, two Killdeers, and one Western Sandpiper (See below).

Ereunetes mauri: WESTERN SANDPIPER. As mentioned above, one bird present at the 5.8 tank on the 24th remaining through to the 26th of April.

Columba fasciata: BAND-TAILED PIGEON. Although a single male was noted at the Maloney Orchard as early as the 20th of April, the bird did not become regularly noted until about the middle of May. Nesting seems to be underway about the second week in June. A member of this specie was observed by several observers on the 21st of July being attacked by four Acorn Woodpeckers (Melanerpes formicivorus) while the pigeon crouched defensively amidst the foliage of an oak tree. The conflict, as suggested by Gould, was probably over the acorn supply.

Zenaidura asiatica: WHITE-WINGED DOVE. First appearing at Portal about the 22nd of April, common and commencing nesting activity by the 30th. A few individuals irregularly ascend the riparian and the xeric slopes along the canyon walls to about Sunny Flats.

Zenaidura macroura: MOURNING DOVE. Resident, sometimes in heavy concentrations

in the desert, less frequently along the canyon water-course. A few fed regularly at the Station during April, but none were sighted in this area after the 23rd of that month.

Geococcyx californianus: ROADRUNNER. Regularly distributed in the foothills and on the desert. They often use the tops of telephone poles as preening and observation posts, although with their inadequate landing technique the author would like very much to see one in the process of attaining such a perch. They have been observed taking lizards and insects with great success, but one individual observed stalking and attacking a group of Linnets (Carduelis mexicanus) that were sitting on a barbed wire fence, only succeeded in reducing the author to a stage of uncontrollable hilarity with its ludicrously ineffectual attack. No young birds have been noticed up to the 24th of July.

Order STRIGIFORMES: OWLS

As a preamble to this section, the author wishes to make clear that while his surveys for night birds were frequent and many localities were visited, due to the contrast between the infrequency of sightings by this writer and past reports by experts on these species, the authors observations and audial records only indicate a species' presence and do not reflect its true distribution.

Otus asio: SCREECH OWL. One individual at the Station on the 28th of March. A few audial records along the canyon until about the first of June when most of the owl species seem to quiet down considerably. Mostly found in more open Pine-oak woodland.

Otus trichopsis: WHISKERED OWL. On 21 March at the Station; 13 May at West Turkey Creek; a pair calling for a full week throughout the middle of May at the Station. In riparian with heavy conifer adjoining.

Otus flammeolus: FLAMMULATED OWL. One in thick pine at West Turkey Creek on the 12th of May. One at the Station during late May. Probable audial record at Rustlers Park on 2 June.

Bubo virginianus: GREAT HORNED OWL. Resident and almost common, found during the day in Sycamores along the riparian, hunting at night over meadow areas like Sunny Flats and in the desert below Portal. Hooting was common and probably a good indication of distribution during May when at least ten and possibly more owls of this species were heard at about 0300 to 0400 hours on the 9th of May. On 11 May, a female was heard hooting by the dining room window of the Station main house. While the author was attempting to pinpoint the location of the bird, some small mammal flushed from cover near the calling bird whereupon another up-to-then silent bird ^Wstooped upon it with apparent success and both birds then flew off together. This may indicate team-work hunting in this species.

Micrathene whitneyi: ELF OWL. From the 20th of April to about the middle of June, this small nocturnal raptor was a common form in the riparian along Cave Creek. Individuals showed a marked preference for Junipers and appeared almost invariably in small groups of three to about six birds. Except for brightly-lit moonlight nights, calling ceased after about the 12th of June.

Spectato cucularia: PURROWING OWL. See Hypothetical List.

Strix occidentalis: SPOTTED OWL. A single from Rustlers Park on the afternoon of the 21st of March, perched on a fallen snag over the meadow. A family group is back in the South Fork Camp Ground, exactly where Hardy and Tanner (58) found them in 1956. There are at least five birds, hunting in the riparian at dusk, roosting during the day in wind caves high along the talus-cliff border.

Caprimulgus vociferus: WHIP-POOR-WILL. The earliest record, a calling bird, at the Station on 22 March, but the species did not become common until about the first of May, being common along coniferous-covered north facing slopes and in riparian

bottoms throughout the length of the canyon.

Phalaenoptilus nuttallii: POOR-WILL. Two birds arrived at the Station on 18 April, utilizing the moth-attracting lights of the Laboratory for a hunting area. The species became common about the last week in April but much less vociferous near the end of May when breeding becomes underway. Desert breeding birds below Portal that probably nest earlier, were calling again, after a month and a half of comparative silence, on the 22nd of July.

Chordeiles minor: COMMON NIGHTHAWK. One observation over Rodeo at dusk about the 2nd of July. There is a possibility that an occasional pair may breed here.

Chordeiles acutipennis: LESSER NIGHTHAWK. First noted from Cave Creek below Portal on 23 April. Nesting pair in desert two and one-half miles north of the San Simon ford on 18 May. A common summer resident on the desert below and around Portal.

Aeronautes saxatalis: WHITE-THROATED SWIFT. First observed near Sunny Flats on the 4th of March. Regular at all elevations at all times of day throughout the range. Of interest is that they are found low over the desert east of the main range near Rodeo about noon on clear days. Colonies of nesting birds are on the cliffs at Sunny Flats and at the end of South Fork Canyon. In their evening insect-hawking, they often associate with Violet-green Swallows (Tachycineta thalassina) but never with Purple Martins (Progne subis).

Archilochus alexandri: BLACK-CHINNED HUMMINGBIRD. The second trochilid to arrive; at the Station feeders on 31 March. Numbers increased very rapidly with eight to ten males and half again as many females in attendance by the third of April. By mid-June the males seem to move away to establish territories, only those few with such areas proximate to the Station appearing with any frequency. Courtship diving noted about 17 April. Several nests are located in the vicinity of the Station,

probably in denser concentration than would be normal without the artificial food supply. This species, because of its smaller size, seems easily intimidated by the wasps that also use the feeder. This form is regularly encountered on the desert, but not much above 8000 feet. Females will not tolerate a male of their species on the feeders with them.

Selasphorus rufus: RUFIOUS HUMMINGBIRD. An adult male observed at the Station about 21 April. The author found a first year male on 22 April, also at the Station. Two males, both with incomplete gorgets, but one with a green back and one completely rufous, fought over perching rights at Sunny Flats on 25 July.

Selasphorus platycercus: BROAD-TAILED HUMMINGBIRD. A 21 April sighting by Iasciewski in a Penstemon (sp) patch by Portal Ranger Station is the first season observation. A partially completed nest found by Gould by the junction of the East Turkey Creek-Paradise road on 22 June was found destroyed on the 29th. This species is more common in the small meadows near the ridge of the range, uncommon in riparian down to about the Station.

Eugenes fulgens: RIVOLI'S HUMMINGBIRD. Cazier found a male at the Station on 2 April. In contrast to past behavior of this species as reported to the author, the males seem to have a fairly variable relationship with the other species while at the feeder bottles, even observed feeding simultaneously from the same tube with a male Lampornis clemenciae. The female is another matter however, ruling the feeder area and no other trochilids are allowed near the feeder while she is there. The males of this form are bold in regard to display and often hover only a foot or so in front of an observer, moving violently from side to side flashing the gorget. Females have buzzed the author when he approached their feeding areas. Nest building seems to be started about the second week in June.

Lampornis clemenciae: BLUE-THROATED HUMMINGBIRD. The first hummer to appear this

year. A female came to the feeders on the 17th of March, the day prior to a light snow-drizzle. Within a week, numerous birds of both sexes arrived with the peak of attendance being four males and five females on 18 May. This number decreased as breeding began in June. One male had a territory on the abandoned Maloney ranch house, the structure being covered with a solid mass of blooming Honeysuckles. This species is common from the canyon mouth to about 6500 feet in riparian. An interesting behavior note concerns a female who in early April took a station on a small wire amidst the growth at the foot of the feeders and ambushed the first bird of any sex or species that attempted to utilize the bottles. The other hummers usually fed hurriedly while she was still out pursuing the first victim. She was finally driven away by a very determined female Rivoli's Hummingbird. Females of this species are still quite intolerant of other hummers near them and often in the midst of apparently congenial co-feeding, will turn on the others and attempt to drive them off. A male which had attempted to establish a territory in a flower patch by Portal Ranger Station was driven away by a male Broad-tailed Hummingbird, the only instance that I have recorded of a small trochilid intimidating a larger one.

Amazilia verticalis: VIOLET-CROWNED HUMMINGBIRD. The first definite report was by Gould on the 26th of June at the Station. The author found it on the 27th and it remained until at least the 17th of August foraging in the thicker willow growth along Cave Creek, avoiding large bushes or trees.

Hylocharis leucotis: WHITE-EARED HUMMINGBIRD. The three sightings of this species which is reportedly an uncommon breeding form in the United States, all came during the latter part of June. The first sighting was by the author on the 27th, a female at the feeders bottles which returned several times that day. A very

reputable heresay sighting of an adult male by Davis was made at Idlewilde camp ground on 28 June. An individual identified by Davis as a probable-bird-of-the-year was taken by Gould about one-half mile down canyon from the Station at 5300 feet on 3 July. The latter is now in the collection of the University of Arizona. Both Davis and the author know this species well from prior field work in Mexico where the White-ear is a common bird.

Trogon elegans: COPPERY-TAILED TROGON. The first actual sighting was made on 9 May at Camp Stuart camp ground although campers reported hearing a trogon near-by for "several days". A male was found here at dawn on 10 May and a few minutes later at Sunny Flats two additional males were found calling on opposite sides of the meadow area. This would seem to indicate at least three male Trogons in Cave Creek on this date. On the 20th of May, while a male was preening in front of the Sycamore snag that was later to be the nest site, a group of Mexican Jays (Aphelocoma ultramarina) mobbed the bird for some ten minutes. This was not seen repeated although the author is sure that he had previously seen Jays in the vicinity of the Trogon while the latter was calling and no mobbing took place on these other occasions. The female was found on the 3rd of June entering the aforementioned snag with nesting material and based on her actions, the author concludes that eggs were laid sometime near the middle of June. The female call varies from the male in that the "Cory-cory-cory" note is very soft and warbling and she also has a very subdued "Shree-e-e-eeee" which is almost inaudible at twenty feet. There is another breeding pair near the Portal Panger Station in the riparian on the southeast side of the road. The Sunny Flats pair did much post-breeding wandering in South Fork, where Davis found them inspecting cavities as if looking for a spot to raise a second brood.

Regaceryle alcyon: BELTED KINGFISHER. Single birds were observed on April 12th and 18th at the Cienaga Lake refuge and on 17 April at the Station. In the latter instance, three Black-chinned Hummingbirds feeding at the syrum bottles attacked a lone Kingfisher who flying about 60 feet away over Cave Creek. The four birds flew out of sight toward the Herb Martyr dam with the hummingbirds still pressing their furious pursuit. In 1960, a Kingfisher was seen at this latter location.

Colaptes cafer: RED-SHAFTED FLICKER. Common at all elevations as a resident. Courtship advances noted about the first week in April, one attempt at copulation at the Station on 20 April. Two nests near the Station near the end of June.

Melanerpes formicivorus: ACORN WOODPECKER. Probably the most common picid in the Chiricauhuas. Usually in riparian, but a male found at 8600 feet on 26 April and a few pairs establishing sites within a thousand feet of this altitude in early May modify this latter generality. The species does a great deal of fly-catching and uses an elaborate flight with many fancy loops and twirls as part of its courtship activity.

Asyndesrus lewis: LEWIS' WOODPECKER. A single sighting from the Station on 8 May by Stein, Angstadt and the author. The bird was quite shy and unapproachable.

Sphyrapicus varius: YELLOW-BELLIED SAPSUCKER. A common wintering form, all individuals leaving for their breeding grounds to the north by 10 April, females leaving about five to seven days after the males. Birds were of the S. v. nuchalis type although the author took a hybrid between this form and S.v.varius in December of 1955 at Sunny Flats, the latter is now in the Phillips collection in Mexico City.

Sphyrapicus throideus: WILLIAMSON'S SAPSUCKER. Of regular occurrence among the heavier stands of conifers at higher elevations from 1 September to middle May. A perdominance of females in the feeding groups of from four to nine birds. Mrs. Eddington found a female in the riparian back of the Station on 9 April; the author found what was probably the same bird here on the 20th. It was feeding with a

female Hairy Woodpecker (dendrocopos villosus). A female in Rustlers Park on May 17 formed an extremely late closing record for this season.

Dendrocopos villosus: HAIRY WOODPECKER. Regular in the peak region, casual among larger stands of conifers at lower elevations in the Spring. It is a post-breeding wanderer to the lower limit of riparian during late June and early July. A specimen taken at Rustlers Park on 25 April was identified as D. v. icastis the resident race.

Dendrocopos arizonae: ARIZONA WOODPECKER. "Fairly common and widely distributed throughout the canyon area. This species is found mostly in encinal and riparian. They range at least to 7400 feet as two were seen by Gould at this altitude 0.4 miles by road southeast of Onion Saddle on 24 June, a single bird heard by Davis at this location on 25 June, a pair of adults accompanied by two full-grown juveniles by Davis on 2 July, the female was seen to feed one juvenile suggesting that this was a family group and that breeding had occurred at or near this location" (Davis).

Tyrannus verticalis: WESTERN KINGBIRD. The first sighting on 9 April was a single bird at the station, the species regular below on the desert by the 20th. Two pairs began nesting here on the 28th. Since the first sighting, no Western Kingbird has been seen farther up-canyon than the beginning of the riparian at Portal Ranger Station.

Tyrannus vociferans: CASSIN'S KINGBIRD. A first record from Cienaga Lake on 10 April with another at the Station on the 13th, two birds present and initiating nesting on the 20th. Additional pairs were found breeding at Portal by the 24th; at one location, two pairs of Western Kingbirds were separated by a pair of this form. The total linear distance between the three nests was 35 paces, certainly a compressed territory with so much adequate habitat available here for two forms as aggressive as these birds are.

Myiarchus tyrannulus: WIED'S CRESTED FLYCATCHER. One pair one-half mile up South Fork on 1 May. A nest could not be found or was there any sign of breeding activity although the birds were observed often in this area. It is of interest that similar canyons in other ranges in this quarter of the state showed higher populations of this species in habitats ranging from riparian on the eastern flanks of the Huachucas and Santa Rita Mountains to the rather xeric, narrow confines of Guadalupe Cañon in the Peloncillos. In the latter location, this species was nesting as of 6 May.

Myiarchus cinerascens: ASH-THROATED FLYCATCHER. At Cienaga Lake on 10 April becoming common up and some distance along the canyon by the 20th. One pair nested by the San Simon ford as early as 12 May. After 10 May, there was a large population influx higher into the canyon with several pairs half a mile short of Onion Saddle. They seem to prefer more open areas than their congeners.

Myiarchus tuberculifer: OLIVACEOUS FLYCATCHER. Fairly numerous in heavy riparian, especially near conifers, although not in the latter growth. From Portal Ranger Station to 7600 feet (a few), commoner at lower altitudes. First arrival noted on 20 April, pairing by the 29th. Intense disputes were noted between Wood Pewees (Contopus sordidulus) and this species for territories, especially during early May when four such conflicts were noted at widely separated points. This must be attributed to feeding areas other than nesting sites due to the difference in nest site types used by the two species.

Sayornis nigricans: BLACK PHOEBE. Rather common during Spring, scarce to rare during summer. Confined to wet areas in riparian, nesting underway at the Station about 3 May, this nest abandoned and re-built under a Station foot bridge on 16 May. Three nests on the Station, two more down-canyon (Pug's Bridge and Camp Stuart Bridge). Two nests under cabin eaves half a mile up South Fork; others on Station grounds under a bridge, on side of an abandoned septic tank, and

another in the bed of a florescent light on a cabin porch. Latter pair were temporarily driven-off by a wandering Say's Phoebe (Sayornis saya) that appeared on the 4th of May and left the same day at dusk.

Sayornis saya: SAY'S PHOEBE. A few on the desert, first noted at Cienaga Lake on 10 April, a pair at Trollers on 16 April, and a nest with downy young in an abandoned house near Horseshoe Canyon on 10 May; another at the home of A. Steel at Portal on 23 May contained nearly fledged young. As mentioned under the account of the Black Phoebe, one drove off a pair of the latter forms when it appeared at the Station on 4 May. It then succeeded in trapping itself in a cabin, possibly while hunting a nest site, although the altitude and habitat would have been unusual for this form.

Mniodynastes luteiventris: SULPHUR-BELLIED FLYCATCHER. Not appearing until about the 1st of June, becoming sparsely distributed in riparian growth. They are quite vociferous and thus prominent additions to the canyon fauna. Breeding site hunting was observed during the 2nd week in June.

The Empidonax complex

The difficulty of making accurate identification of members of this genus is well understood, especially when specimens cannot be taken. Migrant birds usually do not sing and with one exception, none of the Empidonaces found during this survey was heard in vocalization other than the 'pit' note which seems to be common to all the western forms. With this in mind, it is suggested that the following identifications may be considered tentatively correct, upon the basis of actions, sites of observation (admittedly of somewhat dubious value during migration) and appearance of the form usually in the area from dates suggested by Brandt and Bent.

Empidonax traillii: Probably sighting at Sunny Flats on 28 April. Two days previously, the author had ample opportunity to watch singing birds of this

species along the Gila River at Redrock, New Mexico and had been impressed by the very clear white of the breast and throat plumage in comparison with specimens of *E. wrightii* and *Hammondi/oberholseri* previously secured in the Chiricauhuas in the Spring of 1955.

Empidonax hammondi/oberholseri: HAMMOND'S or DUSKY FLYCATCHERS. No further speculation other than that a migrant of this type was found in a fringe area between encinal and riparian at the Station on 25 April.

Empidonax wrightii: GRAY FLYCATCHER. Many *Empidonax*es seen during April, all with the habit of tucking the tail in almost a vertical position were probably this species. This clue was described to the author as supposedly a reasonably constant indicator of the Gray Flycatcher. If so, the Gray Flycatcher was the most common *Empidonax* during the Spring 1961 migration.. It was confined to Chaparral and Desert Willow near arroyos at low elevations.

Contopus pertinax: COUES' FLYCATCHER. Found 26 April in the Rustlers Park area with about two to six birds every one and a half miles along the crest trail by the 16th of May. Nesting underway on this latter date; a specimen taken on the 3rd of June was a female of *C. p. pallidiventris*.

Contopus sordidulus: WESTERN WOOD PEWEE. Abundant at all elevations, extending sparingly even far out along the desert washes. A first arrival, at the Station on 25 April. Nests could be found every forty to fifty yards in riparian; 12 nests within 300 yard radius of the Station Main building in June. There is some evidence of double-broods. Two specimens taken during June proved to be *C. s. velliei*.

Mutallornis borealis: OLIVE-SIDED FLYCATCHER. One, with a Wood Pewee, at the Station on 24 April.

Pyrocephalus rubinus: VERMILLION FLYCATCHER. A pair appeared at Cienaga Lake on 3 April, began nesting almost immediately and after raising their brood, left leaving the area to their progeny. This may prove to be a very early nesting date,

as young were fledged by the 8th of May. During April, a first-year male remained about the spring at the Station, often in close contact with Pewees; although neither of these species would tolerate the proximity of a Olivaceous Flycatcher. A pair nested by the Portal Post Office, incubation underway by 25 April. Three adult males and one female were at the Troller ranch on 7 July.

Eremophila alpestris: HORNE LARK. Abundant on the more grassy parts of the lowlands; probably more common along the western slope of the range. Young birds near U.S. 80 on 24 April.

Tachycineta thalassina: VIOLET-GREEN SWALLOWS. Large numbers at Cienaga Lake on 10 April with Tree Swallows (Iridoprocne bicolor). 22 and 23 April found a huge wave of Violet-greens ascending the canyon at dusk in a loose, drifting cloud, several hundred birds in sight at one time. Less abundant concentrations have been seen in this crepuscular movement since. It is common at all elevations and there is evidence of nesting about 6 May.

Iridoprocne bicolor: TREE SWALLOW. From 10 April at Cienaga Lake, a few pairs; they probably do not breed here.

Stelgidopteryx ruficollis: ROUGH-WINGED SWALLOW. A sighting on 22 May at Portal Post Office of a pair hawking over the parking area, the only record from this immediate area. Also found at pond on Slaughter ranch east of Douglas in July, with no sign of nesting activity.

Hirundo rustica: BARN SWALLOW. In the survey area, a single north-bound migrant over the desert two miles east of Portal on 22 May. A pair nest by the railroad depot in Douglas, arriving this area by 23 April. Two active nests were found on top of light globes under the porch of the U.S. Customs Office at Naco, Arizona on 2 June, adults feeding young. A return visit on 2 July found both pairs.

starting second broods. None of the immature birds from the first brood were noticed in the area. The status of this species in Arizona is not yet fully ascertained, according to Brandt (51).

Petrochelidon pyrrhonota: CLIFF SWALLOW. Cazier first noticed this species' colony below the over-pass of U.S. 80 crossing the Southern Pacific railroad at Rodeo near the end of June. The author's visit on 12 July found 33 nests and about 70 birds. A specimen taken on 14 July proved to be *P.p. minima*. This race has not been known to breed in New Mexico previous to this colony's discovery by Cazier. *P.p. tachina* breeds further north and in the Rio Grande Valley. As of 14 July, young were still being fed in two of the nests and probably more, which is considerably later than Brandt's (51) listing as the middle third of June being the end of the season. The colonies included in the A.O.U. Checklist and those mentioned in Brandt seem to be defunct as the author visited the locations at San Bernardino, St. David, Sonita, Hereford and Leslie Canyon, Arizona, all without finding a trace of the species. Gould reports seeing Cliff Swallows near one of the bridges along U.S. 80 north of Douglas as of 20 July.

Progne subis: PURPLE MARTIN. Numerous in the Rustlers Park area during June of 1955. Four males and two females were found on 17 and 18 June flying over Herb Martyr Lake and a few more are seen occasionally near the crest, but the species is on the whole rather uncommon this year.

Cyanocitta stelleri: STELLER'S JAY. Frequently seen in riparian at low elevations during the winter. Most individuals seem to move into the peaks about the first of May. Often seen near Mexican Jays (Aphelocoma ultramarina) but not associating directly with them. Stellers seem just as noisy and nosey as their fellow corvids, but satisfy their inquisitiveness more unobtrusively and with more stealth in

approach. They do less 'mobbing' than other Jays. Stellers were nesting at Rustlers Park by the 25th of June, some birds feeding young out of the nest on the 6th of July. Their variety of calls is well known and the observer cannot always depend on audial recording of such forms as Flickers and Coopers Hawks when he knows that Steller's Jays are about.

Aphelocoma ultramarina: MEXICAN JAY. Widely distributed in noisy family groups throughout the encinal and riparian. Nesting in June is postulated from a general quieting-down of the 'gangs', although no nests have been found. Jays have been found mobbing Red-tails, owls, ravens, trogons, snakes and bobcats. A group of Jays, accompanied by a male Hooded Oriole (Icterus cucullatus), and a male Blue-throated Hummingbird were watched by the author vocally assaulting a racer (Nasticonus) early in June. One pair of Jays drink regularly from a dripping tap in the Station yard, standing on their heads over the tap-valve to reach the trickle of liquid. In an experiment to test their reputed intelligence, a garden hose was attached to the tap and the hose extended along the ground its full length (some forty feet). A Jay landed on the usual watering place, hesitated only a few seconds and then flew directly to the hose nozzle and began to drink! Water could not be seen from a line viewed level with the valve-tap to the nozzle, and no Jay had been seen in the area while the author was preparing the experiment.

Aphelocoma coerulescens: SCRUB JAY. Two birds in the scrub growth along Cave Creek below Portal from the middle of March into July. No evidence of breeding activity was found.

Corvus corax: COMMON RAVEN. Rather uncommon near the peaks. At least one bird at Rustlers Park during Spring, on April 26th the bird was observed in a series of .

aerial acrobatics that was quite spectacular with much looping, diving, twisting and 'power stalls'. A nest high along the cliffs above Sunny Flats was noticed on 3 July, young still being fed. On 23 July, five birds were seen flying noisily along the base of these cliffs, three obviously smaller and less fully plumaged, undoubtedly young-of-the-year.

Corvus cryptoleucus: WHITE-NECKED RAVEN. Frequently found on the desert. Three birds were found mobbing a Harrier near Skeleton Canyon on 19 April; a flock of 53 birds came from the area near Podedo on 26 April flying in one loose group toward Cienaga Lake; three specimens from this party was taken by Pett near the 5.8 tank. A nest near the junction of U.S. 80 had three young on the 13th of May, two of which fledged by 10 June.

Nucifraga columbiana: CLARK'S NUTCRACKER. A pair found by the author's party at about 8800 feet near Rustlers Park on 3 April. The author found at least one bird on each of his winter and early Spring visits to this area and it is probably a regular, but sparsely distributed winter resident. One bird remained at the Station during December of 1955 and soon became regarded as a pet. It could be fed from the hand and was quite unwary. It died of natural causes near the end of December and the specimen, now in the Station collection, proved it to be a male with the skull very heavily ossified.

Parus sclateri: MEXICAN CHICKADEE. Resident, in winter mostly in conifers, but later descends as a post-breeding wanderer to the lower limits of mixed encinal-coniferous forest in the deeper canyons, where Gould found adults feeding bob-tailed young at 6400 feet on One June and with some sightings down to 6000 feet.

Parus inornatus: PLAIN TITMOUSE. Gould reported a single pair from West Turkey Creek in scrub growth about the middle of June. Brandt (51) mentions this species as being found in the vicinity of Cave Creek, but constant field work in this area has turned-up no evidence of their presence here this year.

Parus wollweberi: BRIDLED TITMOUSE. Regularly occurring in riparian and pine-oak from the mouth of the canyon to the higher limit of the chapparal. As a post-breeding wanderer, Gould found it foraging in family groups up to 7500 feet in areas where oak ascends the south-facing slopes.

Auriparus flaviceps: VERDIN. Occuring casually along dry arroyos in the desert, usually two pairs together. Birds with young in the nest during the first week in June. One pair found in top of a large stand of Sycamores at Cienaga Lake, but more often they forage near the middle layer of mesquite-chapparal cover.

Psaltriparus minimus: COMMON BUSHTIT. A common resident in the Pine-oak belt. Nests were constructed as early as 30 March, but then left unused, as is the custom with this species, for six weeks or so; no egg-laying activity noted until the 6th of May. Large family groups at the Station the second week in June. The species is much less conspicuous even as a new family group than the noisy Fall and Winter clans that make them the most prominently noticable avian element in the canyon during the latter season.

Sitta carolinensis: WHITE-BREASTED NUTHATCH. Regularly distributed along riparian and encinal. Pairing noted on 1 April, one nest at Idlewilde on 5 May. Wanders to peaks in Summer.

Sitta canadensis: RED-BREASTED NUTHATCH. Almost invariably restricted to conifers at higher elevations, even here being only thinly distributed. A few descend to about 5400 feet in the Fall.

Sitta pygmaea: PIGMY NUTHATCH. Probably the most numerous form in the peaks during Spring and earlier in Winter; possibly retaining this status during the breeding season. They seem to remain in loose groups of pairs during the breeding season, but do not mix with other species during this period as they do later and throughout the year. After a snowstorm on 24 April, a small group was noted at Herb Martyr dam, the lowest recorded elevation for this species during the survey.

Certhia familiaris: BROWN CREEPER. Thinly, but regularly distributed among the conifers at all elevations. Many wander into riparian down to the mouth of the canyon during late June and July. During this period, very few are found at higher elevations.

Troglodytes aedon: HOUSE WREN. It will be the author's assumption that all troglodytes-type wrens seen this season are House Wrens. The author, in a study of skins at the University of Arizona, was unable to find any constant and usable field characteristics to separate House and Brown-throated Wrens from Arizona in the field. Perhaps collecting would enable the author to make a more concise division between the two forms. (Also see Marshall - Condor 58, Vol. 2, pg. 93). House Wrens first appeared, near Portal, on 1 May, with several sightings in this area from the 3rd to the 5th of May. By the 15th, a few were in the peak region; adults feeding fully grown young on 6 July at the latter area.

Thryomanes bewickii: BEWICK'S WREN. First at the Station on 7 April; appearing in steadily increasing numbers since. Breeding in South Fork 4 May; large young being fed by adults on 27 June. Regular in encinal and riparian.

Campylorhynchus brunneicapillum: CACTUS WREN. Appearing near Portal on 11 April, one bird until the 25th, when a sudden influx of several pairs begin immediately to nest. Regular to common along the flanks of the range. One very unusual nesting site was noted when a bird was found stuffing grassy waste into the roofed-over chimney of the Newman store. The owners igniting of a fire sometime during early June quickly squelched this project.

Catherpes mexicanus: CANON WREN. With the exception of one bird, members of this species did not make their presence known until the 22nd of March when a pair appeared at Sunny Flats. Singing indicates that there is about one pair every quarter to half mile of canyon along the xeric talus slopes. One bird wintered over in the

Station Laboratory, even doing most of his foraging inside the building, searching the rafters and various nooks and crannies. It often spent extensive periods hopping over the entomological project trays and vials pecking with futile determination at the insects under the glass-topped receptacles. A pair across from the lab which began nesting on the 20th very probably had half its team comprised of our unusual house guest.

Mimus polyglottos: MOCKINGBIRD. At Cienaga Lake on the 14th of April. 18 April found a single bird near the canyon mouth; the species becoming thinly distributed along the higher desert by the end of April. Fully grown young were abroad independently the third week of June.

Toxostoma curvirostre: CURVE-BILLED THRASHER. One bird remained at the Station as a winter resident and a very reluctant visitor at the feeding station. One was found at Portal on 3 May; a pair nesting at Silver Creek Canyon by the 5th of May. The species is fairly common on the desert, the most numerous and conspicuous of the thrashers.

Toxostoma bendirei: BENDIRE'S THRASHER. Only one sighting on this uncommon mimic near the junction of the Portal-San Simon road on 7 May.

Toxostoma dorsale: CIRSSAL THRASHER. Adults observed feeding fully grown young at Cienaga Lake on 12 April. One adult near Portal in mesquite on 3 May, the only sighting in this area.

Turdus migratorius: ROBIN. Resident from the canyon mouth to the peaks, less common in scrub oak. Nesting during early June, four nests on the Station.

Mylocichla guttata: HERMIT THRUSH. Probably one of the wintering races of this form, at 7100 feet on the Cima Trail in Greenhouse Canyon on 27 March. One at Sunny Flats on 11 April. Many appeared about the 26th of April. The bird is fairly numerous in thicker woodland, especially if conifers are present. Birds observed at Rustlers

Park during the early part of May were much paler and possibly somewhat larger than those found earlier in the year at lower elevations. Nesting is well underway by late May or early June.

Mylocichla ustulata: SWAINSON'S THRUSH. A pair of migrants at Pug's bridge constitutes our records for this form which was first found on 21 May, the birds remaining for four days.

Sialis mexicana: WESTERN BLUEBIRD. Although members of this species were found in South Fork about the middle of March, one party having one male and three females, they did not attain their normal regular distribution in the higher areas until about the 25th of April. Found invariably in pairs after this date, nesting is underway in the peak area by 6 May, a nest with newly hatched young located near Crystal Cave above the Station on 13 May.

Myadestes townsendi: TOWNSEND'S SOLITAIRE. The author would classify this form as rare, but regular winter resident in the Chiricabuas. This year's sightings include a singing male at Idlewilde Camp Ground on the 15th of April; another sighting at John Hands' dam on the 20th. The author has found this form more frequently in the vicinity of the peaks; during the winter groups of two to four birds were often noted, one for example in December of 1955 at about 8900 feet; four the same month at 7500 feet.

Polioptila caerulea: BLUE-GRAY GNATCATCHER. Two observations were made during early May, a group of three on the xeric slopes near the mouth of the canyon on 10 May and a single bird near the Station on the 12th; the majority of the breeders did not seem to enter this area until about the 20th. A pair was observed nest building on the 23rd with two completed nests found during the third week of May, all in Silver Creek canyon. Distribution is along xeric slopes above watercourses. Concerning the observations made on the 10th, the author noted extreme evidence of sexual

dimorphism as one of the birds was considerably darker, inclining to slate-gray. It looked like a female *P. melanura*, but with the tail pattern of the Blue-Gray Gnatcatcher.

Regulus calendula: RUBY-CROWNED KINGLET. Common at all elevations, even to some extent out into the desert during the early Spring. The species begins to move upward about the end of April, with no observations lower than Rustlers Park after the middle of May. The definite absence of any Ruby-crowned Kinglets in the latter area after 1 June raised doubts in the author's mind as to whether this form really does breed here as has been suggested. It may do so irregularly.

Regulus satrapa: GOLDEN-CROWNED KINGLET. Found only infrequently in the fir forest of the peak area. In winter, uncommon and local at lower elevations in Pine-Oak.

Anthus spragueii: SPRAGUE'S PIPIT. In the author's opinion, the most interesting sighting effected during this study was that concerning this species, at a most improbable place at an equally improbable time of year. The bird was found 'walking' along the shale slope bordering the face of the Herb Martyr dam on the 16th of June. The dam is at 5760 feet and is surrounded by a thin veil of riparian which in turn is enclosed in pine-oak woodland. The author, who was able to remain apparently unnoticed directly above the bird on the spillway walk watched the bird foraging for an estimated twenty minutes during which time he earnestly tried to convince himself that it was not a Pipit! All the constant field marks were checked against a Peterson Field Guide that the author carried with him for he had never before seen the species in life, although he had priorly examined skins of both North American breeding Pipits. These actions and field marks checked out perfectly. A quick return to the Research Station was made to secure some weapon for securing the bird, and upon the author's return the bird was still feeding in

the same location, but due to deficiencies in both the author's marksmanship and the inadequate power and accuracy of the smallbore collecting pistol, the specimen was obviously hit, but still managed to escape and was not seen afterward. Although the stated location and time of year seem to indicate an abnormal situation, there is perhaps some possible explanation for this unusual sighting. This species, along with the American or Water Pipit (Anthus spinoletta) are both found occasionally as wintering forms in the valleys along either flank of the Chiricahua range. As Bent indicates, this genus breeds early upon arrival in the northern breeding grounds and it would not be unusual for a post-breeding wanderer to begin its return to the south early. This happens occasionally in almost every species. As to the observation area, a complete contrast with the bird's normal habitat, possibly the effects of a very strong storm which moved in from the North two days before had something to do with the bird seeking shelter here. Also, there is a possibility that the bird was blown in. On the date of this sighting, many desert-dwelling forms were found up as high as Sunny Flats Camp Ground, including Desert Sparrows and Cactus Wrens which appeared on the xeric slopes above the camp ground and had not previously been reported from within two linear miles of this location. Regrettably, the failure to secure a specimen deprives us of the opportunity to perhaps find a possibly physical explanation for the species appearance at this local at such an unlikely time. The species normal extreme southern limit is supposedly Montana and North Dakota in the breeding season.

Bombycilla cedrorum: CEDAR WAXWING. A regular winter resident, groups of about twenty birds range up the canyon in all types of growth although scarcer in Pine-oak. On 2 April, a solitary bird perched high among the dense foliage of a juniper at the Station, was watched in a "lispig song". No other sighting of Waxwings was made at this time, which is unusual in the authors experience as this

species is so highly gregarious. There have been at least three groups present at one time, but apparently all left by the 26th of April as none have been seen after this time.

Phainopepla nitens: PHAINOPEPLA. Although this form has been a sparse but regular visitor during post summers above Portal, this year only one brief sighting was noted, that by Davis on 6 July at the latter location.

Lanius ludovicianus: LOGGHEAD SHRIKE. Resident in the desert with the population apparently declining markedly during the transition from early Spring to Summer. Six young found in the nest by Rett on 24 April were banded with Station-made bands on 2 May, two days before all birds left the nest. One banded bird was observed in the immediate vicinity of the nest on the 7th of July. Parent birds were not observed in this area after the young had fledged. A nest with four partially incubated eggs was found by Apache on 3 May. Cazier noted interesting activity during November of 1960 in connection with this species. Many of the thorny plants and sections of barbed wire fencing were covered with insects, arachnids and lizards that had been obviously hung up by a Shrike. All prey remains were in a dehydrated and inedible condition and the profundity of the stored food certainly was more than any one bird could have possibly consumed under normal conditions. An attempt to discover the precise reason for this behavior was unsuccessful but a number of hypotheses have been formulated for the answer to this apparently excessive and unreasonable accumulation of prey. Among these may be that this represents the result of normal "practice" by young birds either due to imitation of parental action or instinct to kill. The latter point may be broadened to account for several known examples of wanton killing in this species (Bent; 50). This might be further modified or at least stimulated by an over-abundance of food which would "compel" the Laniid to kill, possibly with the

compulsor for storage for further needs motivating this action. It could not be ascertained if any of the birds effecting this overage of food hanging ever came back to retrieve any part of it. This activity seems to be confined to late Fall, for casual observations by the author on this species before we had become aware of this problem, during late September and October of 1960 and intensive observation during March and early April specifically for this sort of activity, showed that the Shrikes in this area consume all of their prey, exclusively insective immediately after the stoop to secure it.

Verio huttoni: HUTTON'S VERIO. One pair at Sunny Flats on 12 April; a pair nested here during May; another pair nesting on Station last week in May, adults feeding bob-tailed young on 23 June. Gould found the species busy feeding bob-tailed young in Pine-oak during early July, "abundant" in numbers although the author has never found the form out of riparian. Marshall (57) found them in large oaks in riparian, especially in ravines but stated that they are "not dependent on riparian vegetation or water".

Verio solitarius: SOLITARY VERIO. One of the more common species of riparian, diminishing in numbers within the conifers near the peak region. First recorded from Cienaga Lake on the 12th of April; common by the end of that month, a pair initiating nesting at the Station on 4 May with four eggs on the 14th, three young hatched on the 25th. The other hatched the following day, and all fledged by the 6th of June. Some pairs undoubtedly raise second broods, especially at lower elevations. There was little or no singing from the latter part of June until the end of the second week of July when this very verbose species began singing again. Sitting birds of apparently both sexes seem to sing incessantly while incubating and for the first two to four days of the nestling period.

Verio bellii: BELL'S VERIO. A singing pair at the Station on 7 April, two pairs at Cienaga Lake during early May.

Verio filvus: WARBLING VERIO. A first appearance at Cienaga Lake on 18 April, appearing in Cave Canyon about the 25th. Nesting underway by the second week of May, young birds feeding independently for the second week of June. It is thinly distributed along the riparian, usually in Sycamores.

Vermivora peregrina: TENNESSEE WARBLER. Although the reporting of this uncommon visitor to the western United States should in theory be confined to the Hypothetical section of this report, the competency of the two original separate observers plus the author's later sighting of what appeared to be a family group, warrant an extended speculative discussion at this time. The original observation on a singing bird was made by Mr. and Mrs. Leon Wiard at the Sunny Flats Camp Ground on 5 June. They further report this individual was in the same tree from which they had a similar observation for V. Peregrina in 1960. On 9 June, Gould heard the bird and on the 10th was close enough to make an attempt to collect it which unfortunately proved unsuccessful. On August 9th, the author found a family group at Sunny Flat camp ground, the paler of the adult birds feeding bob-tailed young. If the young being fed were indeed V. Peregrina it would indicate that this pair of warblers bred in the immediate area and indeed, the accumulation of past sightings would seem to verify this. Phillips' suggestion (PC) that the warbler(s) may have been feeding young of another species, in the role of nest-helpers, cannot at all be discounted in the light of the presently-understood breeding range of the species. A specimen was taken in the vicinity of Paradise on 7 April, 1925 by H. H. Kimbell (Phillips:56).

Vermivora celata: ORANGE-CROWNED WARBLER. Abundant as a migrant during the latter part of April appearing initially on the 23rd at Portal. It remained in numbers until the second week of May when the population abruptly tapered off. The last sighting was during the first week of June. The bird ascends to about the level

* In addition to the Kimbell 1924 bird (AKR), there is a sighting report by William R. Dillon et al during September 1982 at Portal.

of the Station and down into the desert washes. The largest concentration is at the 5000 foot level.

Vermivora virginiae: VIRGINIA'S WARBLER. First appeared as a migrant at Cienaga Lake on the 14th of April, found at the Station on the 19th. It is uncommon in migration with a few birds remaining as breeders among the pine-oak at about 7000 to 8000 feet.

Vermivora luciae: LUCY'S WARBLER. First recorded at the Station on the 9th of April, increasing in numbers about the middle of that month. It breeds along desert washes up to the riparian near the canyon mouth and is rather common. As a post-breeding wanderer, it seems to move into the more xeric Sonoran Zone at higher elevations, although there is an early sighting of 26 April in Rustlers Park. Young are out of the nest and foraging individually by the second week of June.

Peucedramus taeniatus: OLIVE WARBLER. Although Tanner and Hardy (58) found this form to be rare in the peak area, the author has to rate its density of population from very common to abundant. Certainly, in the Spring of 1961, it was second only to the Pigmy Nuthatch in total numbers from about 8300 feet up. The most unusual sighting of this form was a single male in a mesquite bush just west of Portal (elev. 4900 feet) in company with two male Townsend's Warblers (Dendroica townsendi) on 4 May.

Dendroica petechia: YELLOW WARBLER. Three sightings for this very irregular migrant. The first, a male, in the vicinity of Portal in riparian on 4 May; a female at Cienaga Lake on the 7th of May; a final entry which might indicate breeding in the latter location was a singing male at Cienaga Lake on 7 July.

Dendroica coronata: MYRTLE WARBLER. A male and female of this species remained in the vicinity of the Station from the 14th of April to about the end of that

month. It is an uncommon winter resident in this area, the race D. c. hooverii having been taken in winter at Parker and Tucson, Arizona. (AOU:57)

Dendroica auduboni: AUDUBON'S WARBLER. During winter, the species seems to be represented mostly by individuals of more northerly breeding races, all males having much less black below than the breeding form which itself is probably intermediate between true D. a. memorabilis and the type race (if one recognizes same: See Miller in Condor 57, #3; 173). Individual pairs have been found as far from the mountains as the 5.8 tank on 20 April and Cienaga Lake on the 22nd, but none were found out of conifers after the end of April until the beginning of post-breeding wandering in late June when a few individuals began to filter back down the mountainside to the level of the Station. This form, next to P. taeniatus, and D. nigrescens, is the most common parulid in the range. V. luciae seems to occupy fourth place in distribution.

Dendroica nigrescens: BLACK-THROATED GRAY WARBLER. The most common parulid in the Pine-oak woodland. First record is for Sunny Flats on the 26th of March; at all levels by the 1st of May ranging from low desert (5.8 tank on 3 April) to the peak area (in firs, north slope of Parfoot Park, 25 April). Young out of nest and being fed by adults on 2 June.

Dendroica townsendi: TOWNSEND'S WARBLER. A few sightings of this migrant in all types of vegetation. 4 May found two in company with an Olive Warbler in mesquite west of Portal; another male at Idlewilde on 5 May and several females at Sunny Flats on the 13th of May. A few males with every other species of parulid to appear this year in one large flock at the crossing of the Onion Saddle Road and East Turkey Creek on 2 May.

Dendroica occidentalis: HERMIT WARBLER. One male migrant in a conifer about one half mile up the main road junction in South Fork on 1 May. Swarth (04) lists it

as common and other individuals have indicated the same to the author, but it did not seem to be so this year as the aforementioned observation is the only one recorded on a species that the author was particularly looking for.

Dendroica graciae: GRACE'S WARBLER. A male appeared at the Station on 24 May; the species becoming fairly numerous by the 26th of April. Breeding was underway by the 5th of May with females observed carrying nesting material. A few pairs may breed in conifers at low elevations along the shaded side of South Fork as there had been a regular series of sightings from this area, but most individuals of the species appear in the peak area.

Cooronia tolmiei: MacGILLIVRAY'S WARBLER. Reported by bird-watchers on the 29th of April; an observation of a single male by the author on the 2nd of May in Mesquite just north of Portal. Occasionally seen in this area until the 9th of May when the last notation of the season was effected on a male and female that were traveling together. As a migrant, it is confined to the desert areas and favors the bases of mesquites.

Geothlypis trichas: YELLOWTHROAT. A single male at Cienaga Lake on 4 May, a pair on the 5th and at least 3 families of breeding birds at this location on 13 July. A single male was found foraging about the water faucet at the Portal Telephone Office on the 24th of May. The bird was in the same immediate area throughout the day.

Icteria virens: YELLOW-BREASTED CHAT. Although the author had numerous reports from visiting bird-watchers concerning the presence of Chats from the Portal area during May and early June, repeated trips to the aforementioned area and localities nearby that would have been suitable habitat (riparian with flowing water) such as the Troller family orchard where Chats have bred in previous years, failed to provide any tangible evidence of the presence of the latter species. One pair of Chats, apparently breeding, was found at Cienaga Lake on 13 July.

Cardellina rubrifrons: RED-FACED WARBLER. A single male was taken by Rett at Rustlers Park on the 26th of April; a sight record from Portal the following day. A few others were seen at such high elevations as Rustlers Park, the higher reaches of East Turkey Creek, etc; but the species was seemingly absent from its usual breeding area in South Fork and above Herb Martyr dam. Gould found it during June and July regularly from Onion Saddle to where the saddle road crosses East Turkey Creek.

Wilsonia pusilla: WILSON'S WARBLER. The most common of the transient forms to pass through; at Cienaga Lake on the 18th of April and a few in the San Simon Valley during April, usually in mesquite. Observations in riparian at the Station and the general canyon area commenced about the 20th of April, the species becoming abundant during the first half of May. No females were found until the 28th of April. The population peak dropped sharply about 1 June, no sighting being effected after the 14th of that month.

Setophaga ruticilla: AMERICAN REDSTART. A single sighting by Gould near the saddle road where it crosses East Turkey Creek on 3 July constitutes a record for this very rare visitor to Arizona. The bird was a male and there are two previous records listed by Phillips (56), "a rare transient, taken on June 6, 1917 and Sept. 11, 1918, by A.P. Smith and H.H. Kimball respectively".

Setophaga picta: PAINTED REDSTART. Arriving as early as the 26th of March, the species was common and conspicuous by the first week of May, one pair found nesting on 1 May. It is seemingly confined to riparian edges of Pine-oak, especially if running or pooled water is present in the near vicinity.

Passer domesticus: HOUSE SPARROW. One resident pair was found at Portal during early spring.

Sturnella magna: EASTERN MEADOWLARK. During the later part of March, a flock estimated at well over sixty birds was found wheeling about over the desert below Portal, all in song. One individual was found singing at Portal on 23 April. A most unusual observation concerned a singing bird recorded by Ira Abramson and the author on the 5th of June, the icterid being present high above the canyon bottom on the north-facing slope above Sunny Flats which is about two miles above Portal. The estimated elevation here is about 5300 feet. There is a slightly mesic condition here with a plant association best described as a rather xeric grass-cactus community.

Sturnella neglecta: WESTERN MEADOWLARK. One observation, a singing bird, at Cienaga Lake on 10 April, in company with *S. magna* which is the dominant form here. *S. neglecta* is fairly common along the entrance to Pinery Canyon and the western flank of the range where the author found them during the last week of May.

Agelaius phoeniceus: REDWINGED BLACKBIRD. Reported by members of the Cooper Ornithological Society as early as 10 April, in rushes at Cienaga Lake; however, none were found by the author until 4 May. Breeding is underway by the third week of May, young birds foraging independently by the last part of June. There are from eight to ten pairs of Redwings at Cienaga Lake.

Icterus cucullatus: HOODED ORIOLE. At Portal on 23 April with females carrying nesting material by the 29th; one partially completed nest at the San Simon ford on the 30th. Eight separate encounters by males for mates and/or territories were observed between the first and second year (or older) males, with non-adult plumaged males apparently emerging victorious in every instance. Additionally, only two adult-plumaged males out of sixteen nesting males located certainly indicates to the author that the older birds were more than occasionally encountering difficulties in obtaining mates. If this situation is confined to

this area, it would certainly make an interesting problem for an ornithologist present here during the breeding season. The species is common along the washes in the desert, but two pairs were found in Sycamores up small arroyos above the riparian of the main canyon at about 5200 feet.

Icterus parisorum: SCOTT'S ORIOLE. A male appeared at the Station on 26 March and remained there until the 17th when two other males arrived and all three sang vigorously throughout the morning. By afternoon, all three had left. Males were found in company with other oriole species at Cienaga Lake during early April. Paris began nesting near Portal on 2 May (two nests) in yucca, but well under the riparian cover. A male and female came regularly to the Station hummingbird feeder during May, the male becoming quite adept at feeding in an upside-down position on the bottles. Fully grown young males were found singing near Paradise in East Turkey Creek Canyon on 9 July.

Icterus bullockii: BULLOCK'S ORIOLE. A male sighted at Cienaga Lake on the 18th of April followed by an immature male at Portal on the 23rd from the inaugural observations for the year. Common by 2 May at Portal (one with a nest completely built, no eggs) which indicates an un-noticed early arrival. The third of May found eight males in a single tree at Cienaga Lake; one pair remained to nest, the structure well underway by the 6th of May. The bird is regularly distributed along the riparian up to about Sunny Flats. (Sibleys' recent paper in CONDOR-Vol 66, #2: 130-150, seems to prove indisputable that this form is conspecific with Icterus galbula, the Baltimore Oriole and the authors opinion is of concurrence with Sibleys' findings).

Euphagus cyanocephalus: BREWER'S BLACKBIRD. On 5 April, a flock of thirty or more males were found feeding at a cattle-loading pen at the Kuertz ranch a few miles East of the mouth of Tex Canyon (Southeastern quarter of the range). One male

was seen by Davis at Portal Ranger Station on 11 July, the only sighting for the study area. No females have been found in this region this year.

Molothrus ater: BROWN-HEADED COWBIRD. Two males and a female at Portal on 26 April, a similar group at the Station about 1 May. Many groups, the invariable single female and her harem, were noted in the study area up to late June; occasional stray birds after that. Many females found feeding together at Trollers orchard.

Tangavius aeneus: BRONZED COWBIRD. Considerably less common than the smaller Brown-headed form, it seems confined to the foothills and canyon-mouth region, thus associated with the larger oriole population which it parasitises. A first arrival was noted at the San Simon ford on 18 May.

Piranga ludoviciana: WESTERN TANAGER. The appearance of a male at the Station on the first of May led a series of sightings of males the remainder of the week, the majority of the observations in the vicinity of the canyon-mouth near Portal. Females were not observed at the lower elevations, but were found with the first known occurrence of males in the breeding area about 7500 feet on 9 May. Gould took a juvenile below Rustlers Park on 24 June while the author has seen what were obviously nesting pairs above 7500 feet in June of 1955.

Piranga flava: HEPATIC TANAGER. A male calling at dusk just above the Station on 6 May opens the list of several sightings for this area. The first record for a female was one with three males at Camp Stuart on 9 May. Dr. George found a nesting pair at Sunny Flats about the 19th of June. Gould found young being fed at Herb Martyr dam on 23 July. The form is an irregularly distributed breeder in the riparian.

Piranga rubra: SUMMER TANAGER. A single sighting of a male reported by Gould from one mile down the canyon from the Station on 29 June. This species is not known to breed here.

Richmondia cardinalis: CARDINAL. A male appeared at the Newmans' home near the canyon mouth on 20 April and has remained in the general area up to at least July 31st. There was a mated pair at Trollers which appeared sometime during the last part of May. There may have been yet another male near the San Simon Ford during the last part of May, but if so it was no longer in that area in August.

Pheuticus ludovicianus: ROSE-BREASTED GROSBEEK. See Hypothetical List.

Pheuticus melanocephalus: BLACK-HEADED GROSBEEK. With the appearance of a male near the Lab on the 20th of April and a female on the 22nd, a series of observations was initiated for this rather common species, found mostly in riparian. There seems to be about two pairs for every quarter-mile of the former plant community. Occasional birds are found in the Fir-Yellow pine at higher elevations, but the author does not believe that these individuals are breeding birds. The peak of arrival seems to be about 26 April.

Guiraca caerulea: BLUE GROSBEEK. Although the author had received reports from various bird-watchers of sightings for this species from the Portal area, only one male has been found there, this on 10 July. This is certainly considerably later than its actual arrival date. It was found by the marshy irrigated area of the Troller orchard. The species is represented by at least one pair at Cienaga Lake and probably breeds there, although no nests were found.

Passerina amoena: LAZULI BUNTING. A male and female found at Sunny Flats on 5 May. There may have been two other females, but observations on the latter two birds were indefinite. One was reported earlier by bird-watchers, this unconfirmed sighting from Portal on 26 April. A single female was observed in Pine-oak at the Station on 14 May.

2 ♂ near
U.S. Forest Down
gate above Portal
May 29, 1952.
Neither A.R.P. or
Cazier still record
this species (new
arrival as of 1950s
or merely
undetected at that
time?)

Carduelis mexicanus: HOUSE FINCH. Common at Cienaga Lake and Rodeo, but more numerous earlier in the Spring, a few pairs from Portal up to the Ranger Station; several small groups of both sexes at the Station during April and early May, often with *C. cassinii*.

Spinus pinus: PINE SISKIN. In dwindling numbers after a huge invasion of 1 April when a flock of several hundred birds appeared back of the Lab with a few Lesser Goldfinches (Spinus psaltria hesperophilus). A few remain in the peak area as late as mid-June.

Spinus tristis: AMERICAN GOLDFINCH. Occasional individuals appeared irregularly from the middle of May to late July, almost invariably females, only an occasional male. Most sightings were in the meadow areas at about 5000 to 5400 feet altitude.

Spinus psaltria: LESSER GOLDFINCH. While a few were found in the flocks of Siskins mentioned above, the form was most often found at the Station throughout the last part of June and July. A pair was routed from a Sycamore at the San Simon ford by a Western Kingbird on the 9th of May. No nests have been found, but it may very well be a breeder in this area. The race present is apparently *S. p. hesperophilus*, distinguishable by its dark dorsum.

Loxia curvirostra: RED CROSSBILL. Two males at Rustlers Park on 13 May; one female on the Station on 14 May along with one male in quite advanced molt taken by Gould at Rustlers Park on 24 June comprised the total of sightings for the study area during this season. The authors observations during the Fall of 1960 found the Crossbill to be a regular and at times common visitor to the Station area, although confined to areas of conifers as expected.

Chlorura chlorura: GREEN-TAILED TOWHEE. A first sighting at Cienaga Lake on the 12th of April followed by another on the Station on the 14th first indicated this migrants presence. Towhees in pairs were found at Cienaga Lake on the 18th and there were several sightings during late April and early May of one or more birds

at the Station. P. erythrophthalmus seems to move out of the area when the Green-tail moves in, although all three forms can be found together in the desert in May.

Pipilo erythrophthalmus: RUFOUS-SIDED TOWHEE. Regularly distributed along the riparian thickets, some individuals moving out into the desert about the second week of April (to breed!?). It has been indicated that this species breeds near the fringe of Pine-oak and the Canadian zone (Brandt:51), but the author has never had a sighting of this form in such a location, which in this range is usually at a considerable altitude. Singing males were found during the first and second weeks of June.

Pipilo fuscus: BROWN TOWHEE. Found regularly in the desert up to the beginning of the riparian. All three Towhees seem to exist as sympatric species during April and May in the same habitat as the Brown Towhee breeds in, the Chapparal community (in this range, at least). The race form present here is P. f. mesoleucus, the so-called Canyon Towhee.

Ammodramus bairdii: BAIRD'S APAPROW. A single pair associating with Lark Sparrows (Chondestes grammacus) and Vesper Sparrows (Poecetes gramineus) in knee-high grass about twelve miles south of Apache 5 April. Phillips (56) mentions the species as follows, "formerly, at least, a winter resident of the grassy plains, the last specimens taken 5 Feb. and 8 Feb. 1919 by A.P. Smith".

Poecetes gramineus: VESPER SPARROW. A sparse migrant on the desert during mid-April this year, although in some years it has been noted as abundant.

Chondestes grammacus: LARK SPARROW. Tanner and Hardy (58) found it common along the upper edge of the desert in June and July of 1956 which was in

complete contradiction to the findings for 1961. First appearing on the desert about the 14th of April, it reached a peak of numbers during early May, dwindling numerically about the last of June; with every few sightings after 14 June; four birds at the Station 31 July.

Aimophila ruficeps: RUFOUS-CROWNED SPARROW. Dr. George took a specimen at Sunny Flats on 6 March; several additional sightings during the Spring, a pair on the Station 4 April, two nests found in the Maloney Ranch-Sunny Flats area about 1 May. The bird is uncommon and confined to certain isolated areas of the canyon although a great deal of apparently suitable habitat exists along the length of the south-facing slopes.

Amphispiza bilineata: BLACK-THROATED SPARROW. Abundant on the desert, breeding by 3 May.

Junco oreganus: OREGON JUNCO. A few easily identifiable males of the black-hooded J. oreganus montanus type and several sightings of "mearnsi" type represented this species during the months of March and April from the peaks to about the level of Idlewild Camp Ground. A few "mearnsi" remained on the Station until the 9th of May.

Junco caniceps: GRAY-HEADED JUNCO. Both the "aniceps" and "dorsalis" types were presently abundantly during March and early April. Juncos in this area usually congregated in large groups with complete and unsegregated mixing of species and races with the following exception.

Junco phaeotus: MEXICAN JUNCO. The only breeding Junco in the area, remaining at low elevations, mostly riparian and Pine-oak until 1 April when many individuals moved to the peak area with a few "Pink-sided" Juncos. The latter disappeared about the end of April at which time this species began showing signs of pairing. None have been found below 7600 feet since 1 June, with most of the birds in heavy stands of conifers, a sizable population among the firs on the peak summits.

Spizella passerina: CHIPPING SPARROW. First observed about the first of April, ten to twelve birds at Rustlers Park on 26 April, very widely distributed and abundant throughout the range by the end of April. Nesting underway at the Station by 3 June. Young out of the nest and feeding independently on 14 July.

Spizella breweri: BREWER'S SPARROW. A very large flock at the 5.9 tank on 19 April, with every individual singing constantly, thus creating quite a din as the song of this species has both volume and variety between individuals.

Another group, which the author believed to be a different flock, was noted at the same tank on the 28th of April. One bird was seen at Silver Creek Canyon on 4 May.

Zonotrichia leucophrys: WHITE-CROWNED SPARROW. Large numbers appeared at Cienaga Lake on 10 April; at the Station on 20 April, a pair at Portal on the 23rd and a single at the Station on the 25th. There is one hearsay report from the Station about the middle of June. The race represented was of "gambelii" type head pattern.

Melospiza lincolni: LINCOLN'S SPARROW. A few in the marshy area back of the Lab at the Station until about the 20th of April when all individuals seemed to have moved on; one bird remained at Sunny Flats until 30 April. A very interesting observation concerns a tailless bird at the Station on 29 July. This form is not known to breed further south than the White Mountains of Central Arizona (A.O.U.:57).

APPENDIX "A"
HYPOTHETICAL LIST

Included in this section are sightings of a heresay nature by individuals whose qualifications as observers are unknown to the author, or forms in which the author himself was uncertain of his accuracy of identification due to either lack of adequate observation time or unfamiliarity with a difficult species. The allocation of an observers report to this section does not mean to imply that the sighting is faulty, but as the title of this list suggests, there is a need for further investigation concerning the exact status of the form in this area as it is most uncommon or rare.

Acknowledgement is made to those individuals who so generously contributed their sightings and field notes toward the completion of this section.

Nycticorax nycticorax: BLACK-CROWNED NIGHT HERON. Reported at Cienaga Lake on 30 April by Mr. & Mrs. Cardner of the Yosemite National Park Museum.

Buteo albonotatus: ZONE-TAILED HAWK. Two observations at widely separated points both in time and location; one by Abbot from the east slope of Rustlers Park on 25 April, another by a visitor from the University of Arizona near Camp Stuart Camp Ground on 29 July.

Crytonyx montezumae: HARLEQUIN QUAIL. Reported by Mr. A. Steel, a resident of Portal, who claims a small covey utilized the bed of Cave Creek for foraging in April and May. Two specimens were secured at Sunny Flats in December of 1955. The bird is thought to be rare in this area, but may be more common than generally supposed due to its secretive habits.

Speotyto cunicularia: ^UBORROWING OWL. Jay Cole reported approximately five birds in a Kangaroo Pat (Dipydomes - sp) town east of U.S.80, to the south of Podedo, New Mexico. They were found on 15 August of 1960, four birds on one mound with another on a separate mound near-by.

II

Oreoscoptes montanus: SAGE THRASHER. One brief glimpse of a bird believed to be this species by Rett, Abbot and the author below Portal on 24 April.

Cassidix mexicanus: BOAT-TAILED GRACKLE. While not concerned directly with the outlined study area, the sighting of this species is deemed worthy of notice because the status of this form in Southern Arizona, both from a point of subspecies and actual distribution, has not yet ceased being controversial. A male was found at the Southern Pacific Railway depot in Douglas, Arizona on 22 March; a female at the old John Slaughter ranch (San Bernidino grant) on 12 May.

Pheucticus ludovicianus: ROSE-BREADED GROSBEAK. A male was reported from the feeding tray of the Hastings family whose home is situated in the riparian near Portal, this notation on 22 May. The couple did not originally know the identity of the bird in question, but after a check through a popular field guide with reference to those forms that seemed appropriate to their description, the author found that this form seemed to fit the subject perfectly. The A.O.U. Check-list, 1957 reports that the species is casual, but regular in migration in souther Arizona.

Herperiphona vespertina: EVENING GROSBEAK. One fleeting glimpse of a bird in flight among the pines at about 6000 feet in West Turkey Creek on 3 May might have been a late migrant of this rather uncommon species in this area. There are no records of specimens from this range so late in the year (notwithstanding the A.O.U. Check-list, 1957, which mentions *H. v. montana* as resident here) and the species is not even common as a winter visitor. The possible sighting was by the author.

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