

JUNE BIRD LIFE OF THE PAPAGO INDIAN RESERVATION, ARIZONA

By GEORGE MIKSCH SUTTON and ALLAN R. PHILLIPS

In June, 1940, the authors and Mr. Lyndon L. Hargrave made a ten-day ornithological survey of the Papago Indian Reservation, in southwestern Pima County, Arizona. Most writers on the faunal areas of southern Arizona have assigned this region to the "Western Desert Tract" (=Yuma Faunal Area); but Mearns (1896:137; and 1907:73-74 and map opp. p. 23), whose route followed the Mexican border across the entire Reservation, considered it part of his "Apache or Elevated Central Tract," an inclusion that appears to be justified.

Little has been written about the birds of the Papago. An important contribution is that of Monson (1936), whose report covers the period from September, 1934, to February, 1935. Other authors (Bruner, van Rossem, Phillips, *et al.*) have discussed winter and spring (to June) birds of the Baboquívári Mountains, whose crest bounds the Reservation on the southeast; and Brown (1885) and Scott (1886-1888) long ago reported on a few birds found by Brown at the old mining town of Quijotoa in winter and spring. Mearns collected within the area only in midwinter. It is thus apparent that the *breeding* birds of the area are virtually unknown.

In November, 1939, the Papago Council granted the junior author permission to pursue his studies and collect birds on the Reservation. Making preliminary trips with Monson to Menager's Dam and Baboquívári Camp in January and March of the following year, he planned the June investigations. The senior author went to Arizona by airplane, joining Phillips and Hargrave in Tucson. The three-man party traveled about the Reservation in Phillips' car. Their itinerary and camps are indicated on the accompanying map (fig. 17).

Except in the Baboquívári Mountains, pure Lower Sonoran Zone conditions were encountered. This zone obviously pervades nearly all the Reservation, and here consists of three principal associations: (1) Level areas, where creosote bush is dominant and bird life is scarce. (2) Hilly, gravelly country, where the dominant plants are palo verde and various cacti, including the saguaro or giant cactus and, on the rocky hills about Menager's Dam, the organ-pipe cactus; locally, in moister areas, ironwood (*Olneya tesota*) occurs. (3) Washes, along which there are fairly large leguminous trees (mesquite, palo verde, and ironwood), various sorts of brush, and desert hackberry. In this association the most varied bird life is to be found.

In the large wash nine miles by road north of Menager's Dam, the desert hackberry is unusually luxuriant. At the Dam there is an almost pure mesquite woodland, with trees (some of them dead) twenty feet high. At the time of the authors' visit, this woodland was very heavily grazed—more so than most of the Reservation—and the water was low, the five-acre pond being very muddy. On the dam itself was a weeping willow; the few other willows across the pond were apparently dead. Nowhere in the Reservation was a true willow-cottonwood association encountered, though some shade trees were noted about the agency at Sells.

At Ventana Ranch there is an extensive meadow of tobosa grass (*Hilaria mutica*). At either side, as the land rises gradually, the tobosa merges with creosote and mesquite, thins out, and disappears. Along the bottom, as at our camp eight miles by road south-southwest of the Ranch, it becomes patchy, the areas of tobosa being scattered among the mesquite and other brush.

At Baboquívári Camp there is heavy mixed brush (mesquite, catclaw, *Dodonaea viscosa*, *Anisacanthus Thurberi*, etc.), and along the creek bed some canyon hackberries

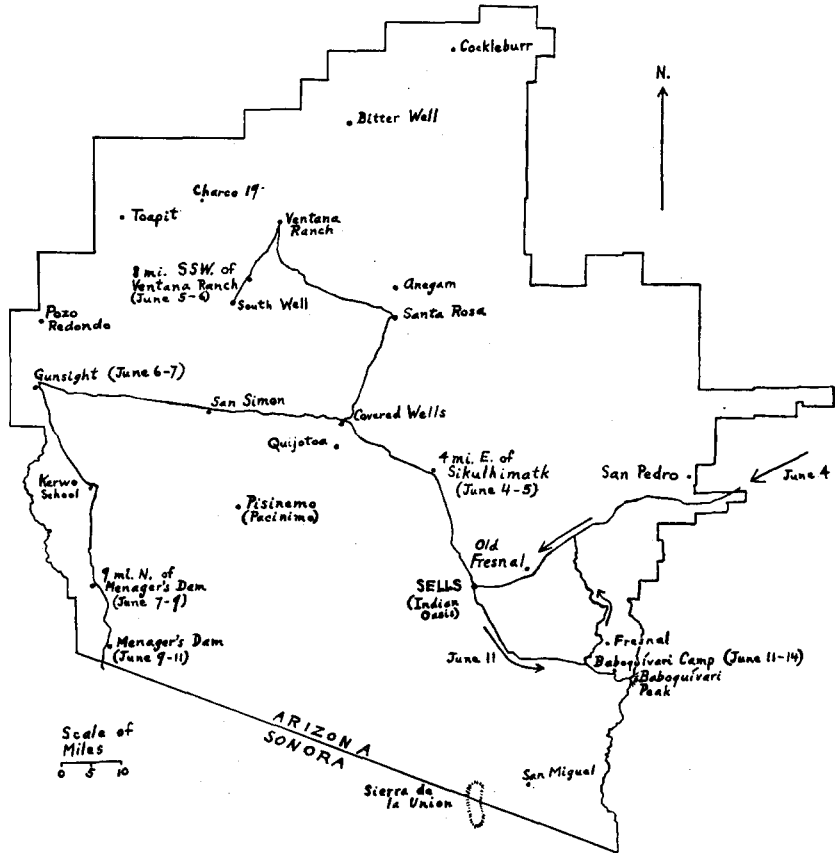


Fig. 17. Map of the Papago Indian Reservation, Arizona, showing route and overnight camps (dated) of the authors, and localities mentioned by previous writers.

and live oaks grow. A trail leads thence up through the live oak-shrubby monocot-grass belt to Baboquivari Peak. At the saddle just west of the Peak is a live oak-piñon-juniper-grass-*Agave* association. The junior author climbed to the base of the cliffs at the east end of this saddle, finding there a rather dense stand of mixed trees, including the New Mexican locust (*Robinia neomexicana*). Returning to the trail and following it part way up Baboquivari Peak, he discovered no further evidence of Transition Zone.

Only a small part of the Reservation is cultivated. At the village of Sikulhimatk and above Menager's Dam there is considerable rainy-season dry farming by the Papagos, and Menager formerly irrigated a few fields below the dam. Considerable stands of *Amaranthus* grow along the larger washes above the dam in the summer rainy season, but by the following June these have largely been trampled down by livestock and only small patches remain. Beside the fields below the dam is a mixture of creosote, desert hackberry, mesquite, palo verde, and other shrubs with *Amaranthus* and annual grama grass.

The above description, it will be noted, differs from that of van Rossem (1936: 124-125) in certain particulars. Puzzled by our failure to find any "broad, level, grass plains," we inquired of Monson, whose personal knowledge of the Papago country is extensive, whether the area about San Miguel might differ markedly from anything we had visited. Monson replied that he considered the vegetation about San Miguel "much

the same as . . . at Sells" and described the Reservation as a whole as "similar to the general Tucson and Tucson Mountain area."

The Papago Reservation does differ from areas to the north and east in being *more* rolling and broken, especially in the section eastward from San Simon. The grass seen by van Rossem in late June, 1932, was probably an exceptionally luxuriant growth resulting from the unusually rainy summer of 1931 or the unseasonable rainfall of June 4, 1932, which may have extended this far southwest. Monson informs us that, according to his experience, the closest approach to perennial grass anywhere in the main body of the Reservation is an annual form of *Bouteloua Rothrockii* which, although distinctly subdominant, may sometimes present "the appearance of perennial grasses." He states further that "the only pure stand of grass is . . . at Ventana Ranch and along that wash to the northern boundary." This is, of course, *Hilaria*. As for mesquite, he states that aside from the copse at Menager's Dam, there are "no thickets . . . to compare with those along the Santa Cruz and San Pedro rivers." Acknowledging the tree to be common, he says it is "largely confined to the water-courses."

Along the Mexican boundary, Mearns (1907:116) found the "bushy or chaparral country" to extend from about 10 miles east of Pozo de Luis (which is 5 miles south of Border Monument 152) west to beyond Sonoyta, Sonora, thus including practically the entire Papago Reservation. His observations thus agree with Monson's and ours.

In southern Arizona the spring dry season ends in late June. In 1940, the first summer rains at Tucson fell on June 20. From June 7 on, therefore, hot, dry winds were a memorable feature of the midday hours.

The specimens taken are in the Louis Agassiz Fuertes Memorial Collection at Cornell University and in the personal collections of Phillips and Hargrave. The nomenclature employed in the following list of the 89 species recorded is chiefly that of the A.O.U. Check-list of North American Birds (1931). The authors received continual aid from Monson, and are also grateful for the assistance of Hargrave and of the authorities of the following institutions: United States Fish and Wildlife Service; University of Arizona; American Museum of Natural History; University of Michigan Museum of Zoology.

Cathartes aura. Turkey Vulture. Small numbers seen everywhere, even over the main ridges of the Baboquivaris.

Coragyps atratus. Black Vulture. Seen by Phillips as follows: 5 miles west of Sikulhimatk, two, June 5; 9 miles north of Menager's Dam, two, June 7, and one the next day; and at Menager's Dam, one, June 11. There are several other records in recent years, mostly from near Sells (Taylor and Vorhies, 1933; Chambers, 1934; Pierce, 1934; Monson, 1936).

Buteo borealis. Red-tailed Hawk. Scattered pairs and single birds seen all over the Reservation.

Buteo swainsoni. Swainson Hawk. Single birds seen June 6 at points 2 or 3 miles south of Ventana Ranch and 7.5 miles west of San Simon; also at Menager's Dam on June 9 and 11. All were in "normal" phase, the bird of June 9 being exceptionally pale.

Parabuteo unicinctus. Harris Hawk. Seen repeatedly, though in small numbers, in the hilly saguaro-palo verde country between Sells and San Simon. One seen on June 11 on a telephone pole 5 miles west of the base of the Baboquivari Mountains in a similar association. On June 5 a nest was found by Phillips on a high arm of a saguaro 2 miles west of Sikulhimatk. Three well-feathered young perched on or near the nest, and both parents were in attendance: This hawk is more common on the Papago Reservation than in most other parts of the southwest, having been noted here by Chambers and Robertson (1936) and by Monson (1936).

Aquila chrysaetos. Golden Eagle. Two to four seen on the evening of June 12 flying about Baboquivari Peak (Phillips).

Falco mexicanus. Prairie Falcon. One (or two) seen repeatedly at Menager's Dam, hunting Mourning Doves. On the evening of June 9 one was noted up to 7:50, when it was quite dark. At least two birds, probably young, were seen repeatedly about Baboquivari Peak on June 12 and 14. One also was seen about the cliffs back of Baboquivari Camp on June 13.

Falco sparverius sparverius. American Sparrow Hawk. Families, pairs, and single birds seen frequently in saguaro country. Female noted at base of Baboquivari Mountains, south of camp, June 14. Three males taken by Sutton, one as far west as Menager's Dam, cannot satisfactorily be distinguished from birds from the northeastern United States.

Lophortyx gambelii gambelii. Gambel Quail. Pairs and small coveys seen everywhere from Baboquivari Camp west. Especially abundant in the Menager's Dam region, where small young were seen repeatedly and where, under a weed-grown desert hackberry, Sutton found a nest with nine fresh eggs on June 9. No evidence of breeding was noted elsewhere.

Cyrtonyx montezumae. Mearns Quail. Two families of young about a third grown and well able to fly were seen by Sutton in a grassy canyon southwest of Baboquivari Peak on June 14.

Columba fasciata fasciata. Band-tailed Pigeon. Seven single birds and a flock of three were seen about the saddle just west of Baboquivari Peak on June 14. A male, secured by Sutton, had been eating green acorns.

Zenaidura macroura. Mourning Dove. Seen everywhere in fair numbers save in the Baboquivaris, where few were noted. Seen at the saddle just west of Baboquivari Peak on June 12 and 14. A hundred or more watered at Menager's Dam in the evenings. Nests with eggs were found between June 5 and 9.

Zenaida asiatica. White-winged Dove. Common throughout the lower country. Not seen at the saddle west of Baboquivari Peak, but heard calling in the canyons below. Eggs and small young found between June 5 and 8.

Columbigallina passerina pallescens. Mexican Ground Dove. One seen by Hargrave 0.6 mile east of Gunsight, June 7. Abundant at Menager's Dam, where eggs and young were found.

Coccyzus americanus. Yellow-billed Cuckoo. One passed south through camp 9 miles north of Menager's Dam, June 9. Two noted at the Dam, June 10. Though calling, they may have been transients.

Geococcyx californianus. Road-runner. Noted here and there throughout the Reservation east to Baboquivari Camp.

Otus asio gilmani. Saguaro Screech Owl. Male, female, and one fully fledged young taken from a family 9 miles north of Menager's Dam, June 7. A male collected by Sutton at Baboquivari Camp, June 12, is the first *Otus* actually to be taken in that range.

Bubo virginianus. Horned Owl. One or two noted at every lowland camp. One heard by Phillips near saddle west of Baboquivari Peak on evening of June 12. A young male taken June 11 near Baboquivari Camp was just out of the nest.

Micropallas whitneyi whitneyi. Whitney Elf Owl. One heard by Sutton in saguaros 5 miles west of Sikulhimatk in mid-morning, June 5. Several seen or heard nightly in the Menager's Dam region. Common at Baboquivari Camp. In view of the wide distribution of this owl and its occurrence on the east slope of the Quijotoa Mountains (Brown, 1885), it is puzzling that Miller (1929) did not find it at Covered Wells.

Phalaenoptilus nuttallii. Poor-will. Heard at every camp. Five heard and one young bird on the wing taken by Phillips near the saddle just west of Baboquivari Peak, June 12. Without *P. n. hueyi* or *P. n. "adustus"* at hand, we cannot assign our birds racially.

Chordeiles acutipennis texensis. Texas Nighthawk. Seen nearly everywhere, east to the valley below the Baboquivari Mountains. Not noted at or above Baboquivari Camp. In mid-morning on June 11 about fifty were seen hawking about over areas of dead mesquite at Menager's Dam.

Aëronautes saxatalis saxatalis. White-throated Swift. Several seen daily in the Baboquivari Mountains, including a flock of at least 15. Not noted anywhere farther west.

Calypte costae. Costa Hummingbird. Noted east of Gunsight, where young were caring for themselves on June 7; also seen in the Menager's Dam region and at Baboquivari Camp. On June 14 Sutton took a young bird at the saddle just west of Baboquivari Peak, and Phillips saw a female feeding a young one (which could fly well) farther down the trail. *Not a single adult male was seen on the entire trip.*

Cynanthus latirostris. Broad-billed Hummingbird. Several seen at and near Baboquivari Camp. Not nearly as common there as Monson and Phillips had found them to be on March 24, 1940. Single male seen by Sutton on June 14 a little below the saddle west of Baboquivari Peak. Adult males seen much more frequently than females.

Colaptes chrysoides. Gilded Flicker. Seen in small numbers wherever saguaros grew. Seen or heard twice at Baboquivari Camp. A reddish flicker was seen west of Covered Wells on June 6, and another at Menager's Dam on June 9, but neither was collected.

Centurus uropygialis uropygialis. Gila Woodpecker. Noted regularly in or near the saguaro association. One seen at Baboquivari Camp.

Balanosphyra formicivora. Acorn-storing Woodpecker. One seen by Phillips among the oaks near the saddle just west of Baboquivari Peak on June 12.

Dryobates scalaris cactophilus. Cactus Woodpecker. Seen everywhere in lower country. A few noted also in the oak belt of the Baboquivari Mountains.

Dryobates arizonae arizonae. Arizona Woodpecker. One seen on Baboquivari Peak and one taken at the saddle just to the west on June 14.

Tyrannus verticalis. Arkansas Kingbird. Two seen at Sells (where there are shade trees) on June 11.

Tyrannus vociferans. Cassin Kingbird. Several seen at and above Baboquivari Camp. Nests were found at Baboquivari Camp and in Moristo Canyon.

Myiarchus tyrannulus magister. Arizona Crested Flycatcher. Noted at every Lower Sonoran camp and along the highways. A few pairs were encountered a little above Baboquivari Camp, in Moristo Canyon.

Myiarchus cinerascens cinerascens. Ash-throated Flycatcher. A few seen nearly everywhere; occurred up to the saddle just west of Baboquivari Peak. Common at Gunsight and Baboquivari Camp. Very common at Menager's Dam, where young, both in the nest and on the wing, were seen on June 10.

Sayornis saya. Say Phoebe. Male in poor plumage taken by Phillips just east of Gunsight, June 7. One heard at the ruins of Menager's house below the Dam, June 9. Family group seen about Baboquivari Camp, and one bird on the trail above.

Empidonax traillii brewsteri. Western Traill Flycatcher. Traill Flycatchers were noted in some numbers in the lower parts of the Reservation, as follows: two at large wash 1½ miles west of Santa Rosa, June 5; one in scattered low bushes at edge of tobosa meadow 1 mile south of Ventana Ranch, and one at small wash 5 miles south of Santa Rosa, June 6; one at large wash east of Gunsight, June 7; five at large wash 9 miles north of Menager's Dam, June 7-8; and fifteen to eighteen at Menager's Dam, where six were seen as late as June 11. Eleven specimens taken. The birds were obviously not breeding. They were entirely silent except for an occasional *whit*, and their gonads were not greatly enlarged. Most of the specimens were females, as might be expected of late transients. The presence of this species in northwestern Mexico and southern Arizona from June 1 to 9 can hardly be considered sufficient evidence of its breeding (see Moore, 1940:352).

Empidonax difficilis difficilis. Western Flycatcher. This species, also, was migrating in considerable numbers. It was encountered only where shade was dense. Five were seen, June 7-8, nine miles north of Menager's Dam. Six or seven were recorded about Menager's Dam, June 10-11. On June 13 two empidonaces were seen in Moristo Canyon, above Baboquivari Camp. One of these, on collection, proved to be *E. difficilis*. This species, like the last, was obviously not breeding, nor can its presence in northwestern Mexico and southern Arizona from May 31 to June 23 be considered valid evidence of breeding (Moore, 1940:368-371). The spring migration is very protracted. The species has been taken on the Papago Reservation from March 24 (Monson and Phillips, 1941) to June 20 (Moore).

The two males and four females taken in the Menager's Dam region, June 7-10, are all referable to the Pacific Coast race, *difficilis*. The female taken by Sutton in Moristo Canyon, June 13, while probably bound for the same district, has a very long tail (60 mm.), so cannot be safely referred to that race; the wing is 63 mm.

Myiochanes richardsonii richardsonii. Western Wood Pewee. Not as common as the two empidonaces. Definitely recorded as follows: one taken by Hargrave 9 miles north of Menager's Dam, June 7; four seen about the Dam, June 9-11; one seen by Phillips near the saddle just west of Baboquivari Peak, June 12. Possibly this last was a breeding bird, but the rest were surely transients.

Nuttallornis borealis. Olive-sided Flycatcher. Transient female taken by Sutton at the saddle just west of Baboquivari Peak on June 14. The bird was fat and the ovary but slightly enlarged.

Pyrocephalus rubinus mexicanus. Vermilion Flycatcher. Abundant at Menager's Dam, where several full-fledged young were seen. One pair noted at Baboquivari Camp, June 12-13. If *P. r. flammeus* is a valid race, it is evidently on the basis of slightly browner (less gray) upperparts and (in females) breast-streaks, rather than of paler back. We have not seen fresh fall specimens.

Camptostoma imberbe. Beardless Flycatcher. Breeding male noted at Baboquivari Camp on June 12 and 13; bird taken on latter date. Previously reported from both Fresno (Vorhies, Jenks, and Phillips, 1935; van Rossem, 1936) and Baboquivari Camp (Monson and Phillips, 1941).

Otocoris alpestris adusta. Scorched Horned Lark. Noted only in bare spots in the tobosa meadow 1 mile south of Ventana Ranch, where six or seven birds were seen and three males and a female were taken on June 6. Three of these specimens were still practically in breeding condition. The specimens are mostly dilute and *aphrasta*-like, but are clearly best referable to *adusta*. They are not *leucansiptila*, with which they have been compared.

Progne subis hesperia. Western Martin. Pairs and small colonies seen repeatedly about the sagueros, north to 4 miles south of Santa Rosa, west to Gunsight, Kerwo, and the Menager's Dam region, and east to 7 miles west of the base of the Baboquivari Mountains. At Menager's Dam they were heard flying overhead at about 4:00 a.m. on June 11.

Aphelocoma californica woodhouseii. Woodhouse Jay. A few noted at Baboquivari Camp, Baboquivari Peak, and along the saddle just to the west.

Aphelocoma sieberii arizonae. Arizona Jay. A few small flocks seen about the saddle just west of Baboquivari Peak.

Corvus corax sinuatus. American Raven. Singles and pairs seen regularly in the Menager's Dam region, where a badly worn specimen was taken; noted also at Baboquivari Camp and near the saddle just west of Baboquivari Peak.

Corvus cryptoleucus. White-necked Raven. A few seen daily in the main reservation, but none in the Baboquivari Mountains. Noted north to 8 miles south-southwest of Ventana Ranch, west to Gunsight and the Menager's Dam region, and east to 2 miles south of Topawa. The only specimen secured was a female taken 2 miles west of San Simon, on June 6 (Sutton).

Baeolophus wollweberi annexus. Bridled Titmouse. Noted near the mouth of Moristo Canyon and along the saddle just west of Baboquivari Peak, June 12-14.

Auriparus flaviceps. Verdin. Family groups seen nearly everywhere. Common in the larger washes. Noted even in the lower part of the oak belt on the trail to Baboquivari Peak. Specimens secured on our trip are not adequate for racial identification, but two others taken at Menager's Dam on January 7, 1940 (Monson and Phillips), are of the usual southeastern Arizona type, that is intergrades, perhaps nearest *ornatus*.

Psaltriparus minimus. Bush-Tit. Several family groups noted along the saddle just west of Baboquivari Peak on June 14.

Thryomanes bewickii eremophilus. Desert Bewick Wren. Two seen at Baboquivari Camp. Fairly common about Baboquivari Peak and in the saddle just to the west.

Heleodytes brunneicapillus couesi. Northern Cactus Wren. A few noted at nearly every camp and occasionally en route. Commonest about Menager's Dam and in the lower Baboquivari Mountains, where the species was not observed above the lower part of the oak belt.

Catherpes mexicanus conspersus. Canyon Wren. Several families seen among the rocky hills around Menager's Dam. Fairly common in the Baboquivari Mountains; specimens taken.

Salpinctes obsoletus obsoletus. Common Rock Wren. One heard in Moristo Canyon. One taken and a family of about 10 seen well up along the trail to the saddle just west of Baboquivari Peak. It was a surprise not to find this species anywhere west of the Baboquivari Mountains.

Mimus polyglottos. Mockingbird. Noted but once during the entire trip: a single bird seen by Phillips near Fresno Experiment Station at the west base of the Baboquivari Mountains on June 14.

Toxostoma bendirei. Bendire Thrasher. Single birds and family groups seen at Sikulhimatk, Gunsight, Kerwo, and around Menager's Dam. Commonest in open low brush beside fields, especially below Menager's Dam.

Toxostoma curvirostre palmeri. Palmer Thrasher. Seen nearly everywhere, from around Menager's Dam and Gunsight to the lower slopes of the Baboquivari Mountains, and north at least to 4 miles south of Santa Rosa. On June 5, 2 miles west of Sikulhimatk, an adult was twice seen to fly a considerable distance over the same route with food in its bill. The feeding area was evidently more than 75 yards from the nest.

Toxostoma lecontei lecontei. LeConte Thrasher. Noted only in the valley between Ventana Ranch and Santa Rosa, where three were seen and an adult male and young female taken on June 6.

Toxostoma dorsale dorsale. Crissal Thrasher. Noted at all the washes that we visited in which there was heavy vegetation. Not seen above the lower parts of the Baboquivari Mountains.

Poliophtila caerulea. Blue-gray Gnatcatcher. Fairly common from Baboquivari Camp up to the peak itself.

Poliophtila melanura melanura. Plumbeous Gnatcatcher. Small numbers seen nearly everywhere. Abundant at Gunsight, where about sixty young and old birds were seen along 3 miles of a large wash. Least common in the Baboquivari Mountains, where, on the lower slopes, Sutton observed a pair feeding a young Dwarf Cowbird.

Phainopepla nitens. Phainopepla. Two families (or more) seen near Menager's Dam. Noted otherwise only three times: one 8 miles south-southwest of Ventana Ranch, June 6; one 1 mile south of Kerwo, June 11; and one north of Fresno Experiment Station, June 14.

Lanius ludovicianus. Loggerhead Shrike. Several seen about Menager's Dam, and a few single birds and pairs noted elsewhere over the reservation east to near Fresno Experiment Station. Not nearly as abundant, however, as Monson and Phillips had found them to be in January, 1940.

Vireo bellii arizonae. Arizona Vireo. Several noted at every brushy wash we visited except that at Gunsight. Occasional single birds seen or heard in more open desert. Encountered in Moristo Canyon above Baboquivari Camp.

Vermivora luciae. Lucy Warbler. Noted in a number of washes. Common at Gunsight, Menager's Dam, and above Baboquivari Camp. Many young were fully grown by June 11.

Dendroica aestiva aestiva. Eastern Yellow Warbler. A badly worn female was taken from the willow at Menager's Dam on June 9. The supposed Rocky Mountain race, *morcomi*, does not appear to us to be adequately differentiated.

Dendroica nigrescens. Black-throated Gray Warbler. A pair seen by Phillips below the cliffs east of the saddle just west of Baboquivari Peak on June 14, and the female taken. Previously known from this range only as a transient and winter resident. The birds had food in their bills and were obviously breeding.

Geothlypis trichas. Yellow-throat. A very tame and dull female (probably sick) was seen in a flower garden at Kerwo School on June 7. It was almost caught by hand. The absence of *G. t. chryseola*, or of other birds whose *habitat* is absent from the Papago Reservation, does not appear to be of faunal significance.

Setophaga picta. Painted Redstart. A few heard and glimpsed by Phillips near Baboquivari Peak, above the saddle, on June 14.

Passer domesticus. English Sparrow. Several seen at Ventana Ranch, Santa Rosa, and Sells.

Icterus cucullatus nelsoni. Arizona Hooded Oriole. Noted at almost every little wash. Several pairs seen in larger washes around Menager's Dam and in Moristo Canyon. Nests under construction were found on June 5 and 13.

Icterus parisorum. Scott Oriole. Pair seen and female taken at Gunsight on June 7. Several pairs seen (male in full juvenal plumage taken on June 14) from above Baboquivari Camp up to near the saddle just west of the peak.

Icterus bullockii. Bullock Oriole. Only one certain record: one or two seen at Menager's Dam, June 10 (Phillips).

Molothrus ater obscurus. Dwarf Cowbird. Seen almost everywhere; occurred up to the saddle just west of Baboquivari Peak, where Sutton saw a male on June 14. Most common along the larger washes at Gunsight and north of Menager's Dam. Flocks seen about buildings at South Well and San Simon.

Tangavius aeneus milleri. Bronzed Cowbird. Noted repeatedly in the vicinity of Menager's Dam, where the Hooded Orioles were kept busy driving them away. Single males seen at San Simon and Sells on June 11.

Piranga ludoviciana. Western Tanager. Certainly identified only near the saddle just west of Baboquivari Peak, where two were seen on June 14. Whether these were breeding birds or late transients is uncertain.

Piranga flava hepatica. Hepatic Tanager. Noted several times in lower part of oak belt above Baboquivari Camp. Male parent and nest taken. This nest was about 12 feet up in an Emory oak. On June 14 the three young flew from it at the report of a gun near by. Not previously recorded as far west as the Baboquivari Mountains.

Piranga rubra. Summer Tanager. A singing, parti-colored male passed through Baboquivari Camp on June 13.

Richmondia cardinalis superba. Arizona Cardinal. Definite records: a pair at large wash 1½ miles west of Santa Rosa, June 5; about twenty, 9 miles north of Menager's Dam, June 7-8; two or three pairs at and south of the Dam, June 9-10; seven pairs from Baboquivari Camp up Moristo Canyon, June 11-14. Also reported by the caretaker at Ventana Ranch, although we saw none there ourselves. Young in and out of the nest were seen from June 8 to 12.

Pyrrhuloxia sinuata sinuata. Arizona Pyrrhuloxia. Noted as follows: a pair 8 miles south-southwest of Ventana Ranch, June 5-6; a pair and a male at a small wash 5 miles south of Santa Rosa, June 6; at least three east of Gunsight, June 7; about six pairs seen 9 miles north of Menager's Dam, June 7-9 (eggs just hatching June 7); about five in brush beside fields below the Dam, June 9; and about five pairs at the Dam, June 9-11. Also reported by the caretaker at Ventana Ranch, where we did not see any.

Hedymeles melanocephalus. Black-headed Grosbeak. One heard singing 8 miles south-southwest of Ventana Ranch, June 6. Male seen by Sutton at small wash 1 mile south of Menager's Dam, June 9. Male seen by Phillips above the saddle just west of Baboquivari Peak, June 14. The last mentioned had food in its bill and so may have been breeding; the others were late transients.

Guiraca caerulea interfusa. Western Blue Grosbeak. Female seen and singing male taken on June 10 at Menager's Dam.

Passerina versicolor pulchra. Beautiful Bunting. Found near Baboquivari Camp, as already reported (Sutton, Phillips, and Hargrave, 1941).

Carpodacus mexicanus frontalis. Common House Finch. Seen in moderate numbers nearly everywhere; occurred up to the saddle just west of Baboquivari Peak. Fairly common at Menager's Dam.

Spinus psaltria hesperophilus. Green-backed Goldfinch. Female taken at Menager's Dam, June 11.

Pipilo maculatus montanus. Spotted Towhee. Three or four heard (breeding male taken) by Phillips at and above the saddle just west of Baboquivari Peak on June 12 and 14. Previously known only as a winter resident in this range.

Pipilo fuscus mesoleucus. Canyon Towhee. Singles, pairs, and families seen every day at points from 8 miles south-southwest of Ventana Ranch, Gunsight, and the Menager's Dam region east to near the saddle just west of Baboquivari Peak. Large young were seen several times. A nest with three eggs was found on June 8 north of Menager's Dam.

Aimophila carpalis. Rufous-winged Sparrow. About thirteen heard singing and others seen (two taken) 8 miles south-southwest of Ventana Ranch, June 5-6; two seen (one taken) in brush near fields 1 mile south of Menager's Dam, June 9; and at least six seen (5 singing; 2 taken) at two spots near the Dam, June 9-10. The birds were molting, and the testes, though large, were not of maximum size. No evidence of their breeding was obtained. Although not noted farther east on our trip, the species has been reported from Sells (Dawson, 1921), Fresno (Moore, 1932), and Baboquivari Camp (Monson and Phillips, 1941).

Aimophila ruficeps scottii. Scott Sparrow. Common about the saddle just west of Baboquivari Peak, where Sutton found a nest and three well-incubated eggs on June 14; the nest was lined with deer hair. Less common on the slopes east of and above Baboquivari Camp.

Amphispiza bilineata deserticola. Desert Sparrow. Noted sparingly at various points throughout the reservation, except south of Kerwo in the Menager's Dam region. A few seen about Baboquivari Camp, where a female in full juvenal plumage was taken on June 12. Nest and three slightly incubated eggs found June 6 near Ventana Ranch.

RESUMÉ

A survey of the breeding birds of the Papago Indian Reservation in central southern Arizona shows its faunal affinities to lie with the areas farther east rather than with the Yuma Faunal Area, just as Mearns years ago stated. This assignment is based on the occurrence across the Reservation of the following birds: Black Vulture, Swainson Hawk, Arizona Crested Flycatcher, Scorched Horned Lark, Western Martin, White-necked Raven, Bendire and Palmer thrashers, Scott Oriole, Bronzed Cowbird, Arizona Cardinal, Arizona Pyrrhuloxia, Canyon Towhee, and Rufous-winged Sparrow. None of these is known to range regularly to the lower Colorado Valley. The assignment is based also on the absence of LeConte Thrasher, which was detected in only one valley. This valley was not investigated, and it may be faunally different from the rest of the reservation.

Birds whose absence as breeders from the western part of the Reservation is worthy of note are the Golden Eagle, White-throated Swift, Beardless Flycatcher, Rock Wren, and Mockingbird. Some of these are probably indicators of faunal (rather than merely associational) differences between the main reservation and the valleys farther east, but further study is required to settle these questions. The status of the Costa Hummingbird in southern Arizona also requires elucidation before its faunal significance can be appraised.

Three birds detected across the whole of the reservation, but much scarcer in the western part than might have been expected, were: Say Phoebe, Phainopepla, and Shrike. Scarcity of the first two of these might possibly have resulted from a post-breeding migration to other localities or associations.

A fact strikingly brought out was that considerable migration was still in progress during the second week in June. From June 7 to 14, migration was detected definitely in two species of *Empidonax*, the Western Wood Pewee, Olive-sided Flycatcher, Yellow Warbler, Yellow-throat, and Black-headed Grosbeak; and a few individuals of other species possibly also were transients.

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