

the town must present many most desirable breeding localities for these birds, though but few were seen at any one time.

A few thrashers were obtained both from Santa Barbara and Point Conception, though hardly a sufficient number to be of definite value for comparison. A distinct difference in shade of coloration was noticeable however between the specimens from the two localities, so much so as to enable one to separate them at a glance. The Point Conception specimens are of a lighter shade on lower parts and whiter on throat, with line of demarkation on breast between lighter and darker feathers more pronounced than in those from Santa Barbara itself. This difference did not appear to be due to fading, moulting, or wind abrasion, and on further investigation with a good series may prove to be geographical variation. The seasonally late dates on which these specimens were secured were unfortunate as the wing and tail feathers are so badly worn at the end as to have no mensurative value.

California jays were not numerous in the territory visited, and were rather shy, so a much smaller series was taken than had been hoped for, especially as quite a curious fact is noticeable among specimens secured. This is that all those from Point Conception, and the only adult from the Santa Inez River have the lower mandible greatly worn off at the point, causing it to end as if filed squarely across, with a slight backward bevel, but with the file not held sufficiently tight to ensure a flat surface. In some cases the lower mandible is at least one-tenth of an inch shorter than what it apparently should be. The upper mandible in some of these specimens is worn and blunted to some extent, while in others, where not so worn is so much hooked over as to appear abnormal. The specimens from Santa Barbara township, however, have nothing unusual noticeable about the bill. In series from other localities individual idiosyncrasies of various kinds will be found, but in this instance, of the nine adults secured, the four from Point Conception and the single one from Santa Inez River show the same peculiarity, though the typographic, climatic, and floral conditions differ considerably, while the four from Santa Barbara show nothing but a reasonable amount of wear. Unless further observation prove the hypothesis incorrect it would seem as if this abnormal condition was the result of some difference either in the food itself or in the manner of securing it, as the birds may be in the habit of striking the lower mandible against hard ground or rock when capturing or gathering its food.

### Bird Notes from Eastern California and Western Arizona

BY FRANK STEPHENS

(Concluded)

**Megascops asio cineraceus.** Mexican Screech Owl. A male bird shot in the dusk of the evening of August 15th, twenty five miles below Ehrenberg, on the California side of the Colorado, was identified by Mr. Ridgway as *M. a. cineraceus*. This is probably the form found along the Colorado. I heard screech owls in several places along the river. At about 5000 feet altitude, in the Providence Mountains, I flushed a *Megascops* from a thick pinyon tree growing in a narrow gulch but was unable to find it again; it was probably *bendirei*. In the Hualapai

Mountains I heard some small owl, probably a *Glaucidium*, several nights, but was unable to locate it in the pines.

***Micropallas whitneyi*.** Elf Owl. Above the Needles, on the Arizona side I heard a small owl that may have been this species, but was unable to get a shot at it. This was about twenty miles below Dr. Cooper's type locality. He stated that he obtained but one specimen. It is probable that elf owls straggle to the Colorado River in the spring migrations. I looked carefully along the Colorado at all places visited but found no other evidence of its occurrence there. On Big Sandy Creek, above Signal, we secured three elf owls, finding them by their notes and calls, and shooting them with light charges when seen dimly in trees or bushes in the starlight. Others were heard. The favorite breeding places are old woodpecker holes in giant cactuses. I opened a number of these holes in July, but the only positive evidence that I found of their using the cavities was the finding of two dried carcasses of nearly grown young owls.

***Geococcyx californianus*.** Roadrunner. We saw but few roadrunners and these were mostly near the Colorado River.

***Coccyzus americanus occidentalis*.** Californian Cuckoo. Saw one near The Needles and heard others there about the middle of June, and a month later saw and heard others at Big Sandy Creek.

***Dryobates villosus hyloscopus*.** Cabanis Woodpecker. Hualapai Mountains. Not common.

***Dryobates scalaris bairdi*.** Baird Woodpecker. Rather common over most of the route traveled in Arizona, except in the Hualapai Mountains.

***Melanerpes formicivorus*.** Ant-eating Woodpecker. I saw several of these woodpeckers, apparently a family, on the Hualapai Mountains, between 6000 and 7000 feet altitude.

***Melanerpes uropygialis*.** Gila Woodpecker. More or less common in the timber along the Colorado and Big Sandy Creek.

***Colaptes cafer collaris*.** Red-shafted Flicker. Seen on the Hualapai Mts. and near Ehrenberg in the Colorado River bottoms. Not common at either locality.

***Colaptes chrysoides*.** Gilded Flicker. Seen only near Big Sandy Creek, where they were rather common. Some were seen feeding on the fruits of the giant cactuses on the mesa, but they principally frequented the willow thickets near the stream. No woodpeckers were seen on the Providence Mountains, though this range is fairly well timbered, and seemingly well adapted for their homes.

***Phalænoptilus nuttalli*.** Nuttall Poorwill. Heard in nearly every locality where collections were made. Two shot at Big Sandy Creek and one at Bill Williams River.

***Chordeiles virginianus henryi*.** Western Nighthawk. Seen only on the Hualapai Mountains where they were rather common.

***Chordeiles acutipennis texensis*.** Texan Nighthawk. More or less common along most of the route traveled, except on the higher mountains and barren deserts.

***Aeronautes melanoleucus*.** White-throated Swift. Rather common on the Providence Mountains and Hualapai Mountains. I saw a few near Ehrenberg.

***Trochilus alexandri*.** Black-chinned Hummingbird. Two young of the year were on the wing at Twenty-nine Palms, May 18.

***Calypte costæ*.** Costa Hummingbird. Noted at Providence Mountains, Little Meadows and Beale Spring, but they were not common.

***Selasphorus platycercus*.** Broad-tailed Hummingbird. I saw several females

or immature males in the Hualapai Mountains, which from their large size I suppose to be of this species.

**Tyrannus verticalis.** Arkansas Kingbird. Seen at Twenty-nine Palms, Needles, Little Meadows, Beale Spring, Big Sandy Creek, Bill Williams River and Ehrenberg. They were rather common at most of these places.

**Tyrannus vociferans.** Cassin Kingbird. Saw one at the base of Providence Mountains and several in the Hualapai Mountains, mostly above 6,000 feet altitude.

**Myiarchus mexicanus magister.** Arizona Crested Flycatcher. Seen only among the giant cactuses at Big Sandy Creek, where a set of four eggs was taken from an old woodpecker's hole in a giant cactus, July 20.

**Myiarchus cinerascens.** Ash-throated Flycatcher. None seen in the higher parts of the mountains but generally distributed elsewhere, as I saw the species in the foothills, valleys, plains, and even in the deserts where were growing occasional mesquite or other shrubs. They were usually seen singly.

**Sayornis saya.** Say Flycatcher. Seen at Providence Mountains, Needles, Beale Spring, Big Sandy Creek and Ehrenberg, but they were not common at any of these places.

**Sayornis nigricans semiatra.** Western Black Phoebe. Not common. Seen only along Big Sandy Creek, Bill Williams River, and Colorado River.

**Contopus richardsoni.** Western Wood Pewee. Seen at Twenty-nine Palms as migrants, and at Providence Mountains where they were rather common and apparently resident.

**Empidonax difficilis.** Western Flycatcher. Hualapai Mountains, rare; Bill Williams River, one migrant, the last of July.

**Pyrocephalus rubineus mexicanus.** Vermilion Flycatcher. Big Sandy Creek, rather common; Bill Williams River; Colorado Valley near Ehrenberg, not common, as the southward movement had commenced before I got there in August. A farmer in the new settlement of Cibolo, twenty-five miles below Ehrenberg, told me he had brought in a swarm of bees to start an apiary, and that these flycatchers had eaten so many of the bees that the swarm died out.

**Otocoris alpestris ammophila.** Mohave Horned Lark. Occasionally seen along the Santa Fe R. R. in the eastern part of the Mohave Desert.

**Cyanocitta stelleri diademata.** Long-crested Jay. I shot one in the Hualapai Mountains, but saw no others.

**Aphelocoma woodhousei.** Woodhouse Jay. I saw several jays on the Providence Mountains that I believe were of this species, but they were very wild and on such rugged mountain sides that I was unable to get any. I saw a few on the Hualapai Mountains. These were mostly immature birds.

**Corvus corax sinuatus.** American Raven. Seen occasionally throughout the region traversed.

**Molothrus ater.** Cowbird. Generally distributed.

**Xanthocephalus xanthocephalus.** Yellow-headed Blackbird. Seen migrating at Twenty-nine Palms, and at Big Sandy Creek, Bill Williams River, and at Ehrenberg.

**Agelaius phoeniceus neutralis.** San Diego Redwing. Saw a few redwings at Big Sandy Creek and near Ehrenberg.

**Icterus parisorum.** Scott Oriole. I saw and heard quite a number of these orioles on Providence Mountains, where they were undoubtedly breeding. They were also common at Beale Spring in July, where they were feeding on figs and peaches in the orchard.

**Icterus cucullatus nelsoni.** Arizona Hooded Oriole. Rather common at Big Sandy Creek and Bill Williams River; not noted elsewhere.

**Icterus bullocki.** Bullock Oriole. Not common. Young seen out of the nest at Needles the middle of June. Seen at Big Sandy Creek, Bill Williams River and along the Colorado near Ehrenberg.

**Carpodacus mexicanus frontalis.** House Finch. More or less common everywhere. Very destructive to fruit in the orchard at Beale Spring.

**Astragalinus psaltria.** Arkansas Goldfinch. Found only at Big Sandy Creek, where they were not common.

**Chondestes grammacus strigatus.** Western Lark Sparrow. Saw one at Cibolo, Arizona.

**Zonotrichia leucophrys.** White-crowned Sparrow. Saw migrants in Morongo Pass and at Twenty-nine Palms.

**Spizella atrogularis.** Black-chinned Sparrow. Saw a female carrying a larva of some kind in her bill, on Providence Mountains, about June first. She came quite close to me and acted as if her family were near. A month later I saw several at about the same altitude (6000 feet) on the Hualapai Mountains. These appeared to be parents and young of the year.

**Junco oreganus thurberi.** Thurber Junco. Providence Mountains, rare. No juncos were seen elsewhere. I looked carefully in the Hualapai Mountains, but found none and am at a loss to understand why none of the genus occurred there, as I had expected to find *caniceps* or *dorsalis*.

**Amphispiza bilineata deserticola.** Desert Sparrow. Rather common at base of Providence Mountains. Seen at Little Meadows, Beale Spring and Big Sandy Creek.

**Melospiza cinerea fallax.** Desert Song Sparrow. A few were seen near Needles, also along Big Sandy Creek, and about lagoons near Ehrenberg.

**Pipilo maculatus megalonyx.** Spurred Towhee. Common on the Hualapai Mountains.

**Pipilo fuscus mesoleucus.** Canyon Towhee. A few were seen in rocky gulches and rough hills at Little Meadows and Beale Spring.

**Pipilo fuscus senicula.** Anthony Towhee. Seen in Morongo Pass on the way out.

**Pipilo aberti.** Abert Towhee. Rather common in the bottom lands of the Colorado River and its tributaries, to which this species is strictly limited.

**Oreospiza chlorura.** Green-tailed Towhee. The only one noted I saw at about 6000 feet altitude in Providence Mountains

**Zamelodia melanocephala.** Black-headed Grosbeak. I saw a number of females, apparently migrants, in the Providence Mountains at 5000 to 6000 feet altitude, but I saw no males in that range. At Beale Spring both sexes were common and destroying quantities of fruit, to the great annoyance of the owner of the orchard, who employed an Indian to shoot the birds. Unfortunately the Indian did not discriminate between the noxious and harmless species. I saw a few of these grosbeaks on the Hualapai Mountains and one male at Big Sandy Creek.

**Guiraca cærulea lazula.** Western Blue Grosbeak. Seen at various places along the Colorado River and at Big Sandy Creek.

**Cyanospiza amœna.** Lazuli Bunting. Seen only near Needles and Ehrenberg.

**Piranga ludoviciana.** Western Tanager. Soon after our arrival at Twenty-nine Palms, May 17, a male of this species came to the little pond at camp and drank. It appeared exhausted. Next day it was very tame, keeping in the lee

of some bushes where we all were trying to get out of the prevailing sandstorm. He caught flies on the wing, and alighted on our shoulders several times, almost permitting us to handle him. A few Louisiana tanagers were seen on the Providence Mountains. The last days of July several came into a vineyard on Bill Williams River and other migrants were seen later along the Colorado River.

**Piranga hepatica.** Hepatic Tanager. A male shot July 8, at 6300 altitude on the Hualapai Mountains was the only one seen. As is usual with this species, it was in pines.

**Piranga rubra cooperi.** Cooper Tanager. The two white men living at Twenty-nine Palms described a bird closely which must have been of this species; they said it was the only one they had ever seen, and that it appeared a fortnight previously and remained in the shrubbery around their cabins a week. It had probably wandered from its usual haunts in the willow groves of the Colorado River bottoms. August 14 I shot a male Cooper tanager twenty-five miles below Ehrenberg on the California side of the river. This was the only individual I saw on the trip.

**Petrochelidon lunifrons.** Cliff Swallow. Seen occasionally at Big Sandy Creek, Bill Williams River and about the Colorado near Ehrenberg. A few old nests were plastered along the nearly perpendicular cliffs of the Bill Williams River canyon.

**Hirundo erythrogastra.** Barn Swallow. Noted only at Twenty-nine Palms, where several individuals appeared to be summer residents.

**Tachycineta lepida.** Northern Violet-green Swallow. Rather common about the summits of Providence Mountains, probably residents. I saw two flocks along Big Sandy Creek, July 17, migrating, and another flock at Parker on the Colorado River a fortnight later.

**Phainopepla nitens.** Phainopepla. Seen at base of Providence Mountains, Needles, Beale Spring, Big Sandy Creek and Ehrenberg, usually in small numbers.

**Lanius ludovicianus excubitorides.** White-rumped Shrike. Seen in most of the localities visited, but not at all common.

**Vireo gilvus swainsoni.** Western Warbling Vireo. Heard in the Providence Mountains. Not noted elsewhere.

**Vireo solitarius cassini.** Cassin Vireo. Providence Mountains, 5000 to 6000 feet altitude; not common.

**Vireo solitarius plumbeus.** Plumbeus Vireo. Rather common in the pinyon belt at base of the Hualapai Mountains. Not heard above 6000 feet altitude.

**Vireo pusillus.** Least Vireo. Seen and heard at various places along the Colorado River and at Big Sandy Creek. I thought I heard *Vireo vicinior* on Providence Mountains, but as I could not see it I may have been mistaken, its song being very similar to that of *cassini*, which was present a little higher up the mountains.

**Helminthophila luciaë.** Lucy Warbler. First seen at Little Meadows, where I shot the male parent and one of the brood of young June 21. This was about fifteen miles east of Fort Mohave, where Dr. Cooper obtained the types. I failed to find the species along the Colorado River. Two more males were shot in July at Big Sandy Creek where the species was rare. Not observed elsewhere.

**Helminthophila virginiaë.** Virginia Warbler. Shot one on the Hualapai Mountains. Two or three more were seen there. Not observed elsewhere.

**Helminthophila celata lutescens.** Lutescent Warbler. Seen migrating at Twenty-nine Palms May 17.

**Dendroica æstiva.** Yellow Warbler. Migrants, mostly immature, were seen at Big Sandy Creek the latter part of July.

**Dendroica nigrescens.** Black-throated Gray Warbler. Rather common in the higher parts of the Providence Mountains in June.

**Icteria virens longicauda.** Long-tailed Chat. Found only in willow thickets in the lower valleys, such as that of the Colorado River and Big Sandy Creek. Noisy, as usual, in summer.

**Wilsonia pusilla pileolata.** Pileolated Warbler. Seen migrating northward at Twenty-nine Palms, May 17, and below Ehrenberg, going southward in August.

**Mimus polyglottos leucopterus.** Western Mockingbird. I observed one at base of Providence Mountains, one at lower edge of the pine belt in Hualapai Mountains, two at Big Sandy Creek and several near Ehrenberg.

**Toxostoma curvirostre palmeri.** Palmer Thrasher. Big Sandy Creek, rare.

**Toxostoma bendirei.** Bendire Thrasher. Two shot at Beale Spring were the only ones observed.

**Toxostoma lecontei.** Leconte Thrasher. Seen at Twenty-nine Palms; one shot at Danby (a small station on the Santa Fe R. R., in the Mohave Desert); two young of the year shot at base of Providence Mountains.

**Toxostoma crissale.** Crissal Thrasher. Seen at a number of places, including The Needles, Little Meadows, Beale Spring, Big Sandy Creek, Bill Williams River and Hualapai Mountains. The latter was in a location totally unlike any in which I have previously seen this species, being in the lower edge of the pine belt, as an immature bird was shot at 6000 feet altitude, July 8, and a new nest was found in the pinyon and juniper belt a few days previously.

**Heleodytes brunneicapillus anthonyi.** Desert Cactus Wren. Seen in Morongo Pass; shot at base of Providence Mountains; brood of young seen at Little Meadows; also seen at Beale Spring, Big Sandy Creek and near Ehrenberg. Not common at any of these places.

**Salpinctes obsoletus.** Rock Wren. Heard on Providence Mountains; a family seen below Beale Spring the latter part of June; rather common on Hualapai Mountains.

**Catherpes mexicanus conspersus.** Canyon Wren. Providence Mountains and Hualapai Mountains; not common.

**Thryomanes bewicki leucogaster.** Baird Wren. Found only at Big Sandy Creek, where two moulting birds were shot about July 20.

**Troglodytes aedon aztecus.** Western House Wren. Seen only on the lower part of the Hualapai Mountains.

**Sitta pygmæa.** Pygmy Nuthatch. Rather common in the pine forests of the Hualapai Mountains.

**Parus inornatus midwayi.** Gray Titmouse. I saw two in the Providence Mountains.

**Psaltriparus plumbeus.** Lead-colored Bush-tit. I saw a small flock in the Providence Mountains at 6300 feet altitude; they were rather common in the Hualapai Mountains up to 6500 feet altitude.

**Auriparus flaviceps.** Verdin. Rather common at most localities visited except in the mountains.

**Polioptila cærulea obscura.** Western Gnatcatcher. Seen in the Providence and Hualapai Mountains, but not common in either range.

**Polioptila plumbea.** Plumbeous Gnatcatcher. Little Meadows, several seen; Beale Spring, rather common; Big Sandy Creek, rare; Bill Williams River, rare; Ehrenberg, occasional.

**Sialia mexicana bairdi.** Chestnut-backed Bluebird. Several seen, including spotted young, near summit of Hualapai Mountains.