

THE SMALL THRUSHES OF CALIFORNIA.

BY L. BELDING.

There has been much confusion concerning the small thrushes that occur in California, arising mainly, I believe, from the neglect of observers to verify their observations by securing specimens. Hoping to induce the ornithologists of California to give much closer attention to the four or more small thrushes that are found here, I have taken the liberty to present herein a portion of the data which came into my possession while superintending the collection of information concerning the migration and distribution of birds in the "Pacific District," and have quoted, sparingly, from several authors, such matter as I thought appropriate.

I am indebted to my young friend, Walter E. Bryant, for overseeing the publication of this paper. All measurements are in inches or parts thereof, and the nomenclature of the American Ornithologists' Union has been followed.

1. *Turdus ustulatus* (Nutt.)

RUSSET-BACKED THRUSH.—This is the one best known by our collectors, as it is less shy, and is perhaps the only one of these thrushes that breeds in the cultivated parts of the State, to which it appears to be mostly restricted. My observations at San Diego incline me to believe that it does not arrive in California from the south much before the first of May, although it is at least possible that individuals may arrive in the interior of the State from the Colorado and Mojave Deserts by way of the Tehachapi Pass and other interior routes much sooner than along the cool sea coast, as is undoubtedly the case with other species. It leaves central California about the first of September. Dr. Cooper (Proc. Nat. Mus., 1879, p. 249) says: "It left Haywards September 20, 1875." It has been collected as far south as

Central America in winter, as far north as Alaska in summer. It appears to be very rare east of the Sierra Nevada Mountains. It winters entirely south of California, although neither Xantus nor myself found it in the Cape St. Lucas region. Colonel Grayson found it abundant on Tres Marias Islands, in January. Mr. E. W. Nelson (Report upon the Natural History Collections made in Alaska, 1877-1881, p. 217) says: "At present it is known only from the southeastern coast portion of Alaska." Mr. John Fannin, of Burrard's Inlet, British Columbia, says: "It is an abundant summer resident." Dr. J. G. Cooper (Nat. Hist. Wash. Ter., 1860, p. 256) says: "This is one of the most common summer residents in the wooded parts of the Territory, arriving in May, and remaining until the beginning of September." Dr. Suckley, in the same volume, says it was "Quite abundant west of the Cascade Mountains." Prof. O. B. Johnson (Am. Nat., July, 1880, p. 486) says it is "Very common during the breeding season" in the Willamette Valley, Oregon. The only record of its occurrence east of the Sierra Nevada Mountains, as far as I can learn, is Mr. Ridgway's record in his report on the Ornithology of the Fortieth Parallel, p. 396, he having collected a specimen in the Truckee Meadows near the eastern base of the Sierra Nevada. Probably few breed as far south as northern Lower California, although the species was very common between Campo and San Diego, May 16, 1884, and quite as common south of Campo, in the mountains, to near Hansen's, as late as May 14 of the same year. I saw but few between San Diego and San Pedro Mountain, near the Gulf of California, in May, 1885. I first saw the species at San Diego in the spring of 1885, on May 3, when I shot both sexes in pepper trees, *Schinus Molle*, in the streets.

The following are mostly from migration notes of 1884 and 1885:

San Diego. April 25, 1862, April 20, 1875, arrived.
Dr. J. G. Cooper, Proc. Nat. Mus., 1879, p. 245.

Poway, San Diego County. May 1, 1885, first seen, one individual; May 2, two seen; is common and breeds here. F. E. Blaisdell.

Foot of Volcan Mountains. April 2, 1884, two seen. W. O. Emerson.

San Bernardino. A somewhat common summer resident of the valley. F. Stephens.

Santa Cruz. Common; nesting about May 15; eggs from three to four, the latter number the most I have found in any one of about one hundred and fifty nests. Joseph Skirm.

San Jose. April 25, 1884, four seen for the first time. A. L. Parkhurst.

Haywards. April 12, 1885, first seen; common April 18. W. O. Emerson.

Berkeley. First seen April 23, 1885, one bird; next seen April 25; common on April 27; began to sing May 2; breeds here. T. S. Palmer.

Olema. May 7, 1884, first seen. A. M. Ingersoll.

Nicasio. April 23, first seen. Chas. A. Allen.

Chico. May 7, 1884, first seen. May 1, 1885, first seen; became common from the first to the sixth of this month. William Proud.

Sebastopol. April 27, 1885, first seen; next seen April 29; common April 30; breeds here. F. H. Holmes.

Fort Klamath, Oregon. Dr. J. C. Merrill, Auk, October, 1888, p. 365, says: "It arrived at Fort Klamath, Oregon, about May 20, a few nesting about the Fort and in suitable situations in the mountains near the Fort."

Fort Walla Walla, W. T. May 20, 1885, first seen, four birds; next seen June 2; by June 10 it was common. It is somewhat common here in breeding time. Dr. J. W. Williams, U. S. A.

Mr. Nelson, in Proc. Boston Soc. of Nat. Hist., Vol. XVII, p. 355, mentions having seen it at or near Nevada City, Cal., as late as November—an error, I am sure, the November birds having been probably the dwarf thrush, which I think

is the only form of the small thrushes that is found in central California as late as November.

The eggs of *T. ustulatus* are pale bluish-green, and always spotted, I believe, in this latter feature differing from the eggs of *T. aonalaschke* and *T. a. auduboni*. The song of *T. ustulatus* was well described by Nuttall as resembling “*wit-wit, t’villia-t’villia*”. Prof. O. B. Johnson, in “Birds of the Willamette Valley,” published in the American Naturalist, July, 1880, p. 486, says: “The alarm note is a short whistle ‘*whoet*,’ identical with that of a person attracting the attention of a dog; the call-note is a tremulous ‘*whaat-r-r-r*’ in the same key as the alarm note, only ending in a trill.” He describes the song as “A peculiar whistle, ascending a scale of four notes, and sounds like *holsey—govendy—govindy—goveendy*.” Dr. Suckley says: “Its voice is a low, soft, sad, lonely whistle, generally confined to one note about three seconds in length,” from which I infer that he did not hear the full song of *T. ustulatus*. Most authors describe its notes in such general, indefinite terms as to be useless for purposes of identification. The notes on this species, *T. swainsonii* and *T. “nanus”* in Ornithology of California are very misleading. (See Dr. Cooper’s corrections in these Proceedings, Vol. 6, 1875, pp. 190–192.)

2. *Turdus ustulatus swainsonii* (Cab.)

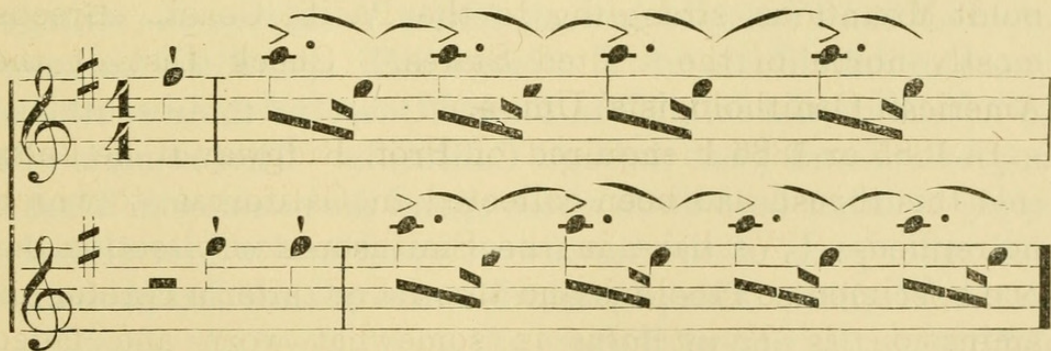
OLIVE-BACKED THRUSH.—Habitat, Eastern North America and westward to the Upper Columbia River and East Humboldt Mountains, straggling to the Pacific Coast. Breeds mostly north of the United States. (Check List of the American Ornithologists’ Union.)

In 1885 or 1886 I enquired of Prof. Ridgway if he knew that this thrush had been collected in California, to which he replied—“We have in the Smithsonian Collection but one specimen so labelled, and this I find, after a careful examination, is *T. ustulatus* in somewhat worn and faded plumage.” In the summer of 1888 I collected three speci-

mens in the mountains of Calaveras County, and these were compared with skins of *T. u. swainsonii* in the Smithsonian, and identified as typical *T. u. swainsonii* by Dr. A. K. Fisher. Prof. Ridgway also thinks them *T. u. swainsonii*, and my specimens collected in Calaveras and Tuolumne Counties in May and June, 1889, fully confirm the opinions of these gentlemen, as I find no difference between them and types of *T. u. swainsonii* from the Atlantic Coast, which were kindly selected and sent me by Prof. Ridgway and Mr. Brewster. I have a specimen I shot in Sierra Valley, California, on the east slope of the Sierra, June 20, 1885, which I think belongs here. I think this form is common in the Sierra Nevada mountains of California in summer, as I have heard its song in Tuolumne, Calaveras, Placer, Butte and Sierra Counties—a song which resembles the song of *T. ustulatus*, but lacks its power, sweetness, and ringing tones. The call and alarm notes of both forms are, however, almost identical.

The note of alarm of the California *T. u. swainsonii* is a short, soft, musical whistle, which may be represented by the word “*whoet*.” The call is also a whistling note, higher than the note of alarm, lasts two or three seconds and is suggestive of the peep of our small frog *Hyla regilla*. It has an enquiring expression. I think it louder than the call of *T. ustulatus*.

Examples of songs of Swainson's Thrush, which I copied as uttered in Calaveras County, California:



All of the notes excepting the one or two introductory ones of the songs are confluent or slurred.

Those I collected in Calaveras County, at altitudes varying from four thousand to five thousand feet, were in dense, damp forests, but I have also found colonies in willow thickets in grassy mountain meadows as at Bear Valley near Emigrant Gap and Sierra Valley, at both of which places I got poor specimens.

According to Mr. John Fannin, of Burrard's Inlet, B. C., it is an abundant summer resident of that region, arriving May 1, 1884, and May 12, 1885, but was not common in the latter year until May 27. Mr. Nelson (Report upon the Natural History Collections made in Alaska, p. 218,) says: "It breeds on the Upper Yukon River." Prof. Ridgway says, in his report on the Ornithology of the Fortieth Parallel, p. 397, that not a single individual of the smaller thrushes was met with after leaving the Sierra Nevada until arriving at the East Humboldt Mountains, where the olive-backed thrush was encountered in considerable numbers during the season of their southward migration.

According to Baird, Brewer and Ridgway, the eggs exhibit noticeable variations in size, shape, and shades of coloring, bearing some resemblance to those of *T. ustulatus*. Mr. Nelson says the eggs of *T. u. swainsonii* and *T. alicie* are absolutely indistinguishable, both in shape and size, as also are the nests, according to his observations—and that both breed together on the Yukon River in Alaska, *T. alicie* being the more numerous on the Lower Yukon. As the mouth of the Yukon River is nearly as far west of San Francisco as San Francisco is west of New York, it seems strange that the individuals of *T. alicie* which spend the summer in Alaska do not follow the Pacific Coast in their southern migrations and pass through California. This remark will apply to other land birds which spend the summer in Alaska and other parts of the northwest coast and winter entirely in the Tropics. The physical features of the coast probably determine the line of flight.

3. *Turdus aonalaschkæ* Gmel.

DWARF HERMIT THRUSH.—Habitat, Pacific coast region, from Alaska to Lower California, east, during migrations, to Nevada and Arizona. Breeds from California northward. (A. O. U.)

It is common in winter in this State below the snow belt and I have seen it as high as Big Trees in January, nearly five thousand feet above sea level. It is common in the mountains of southern Lower California in winter. According to Mr. Nelson (Report upon the Natural History Collections made in Alaska, 1887,) there are no records of its occurrence in Alaska much north of Sitka, where it appears to be confined to the mild climate of the timbered coast. Mr. Fannin, of Burrard's Inlet, says: "It is a rare summer resident." It may breed in California, but I doubt if there is any proof that it does so, although I thought differently until recently. I supposed I had found it breeding in Calaveras County, but a careful examination of several skins I collected there in summer, satisfies me that they are the Big Tree thrush, as explained elsewhere in this paper. Captain Bendire found a nest at Camp Harney, Southeastern Oregon, June 28. It was on the ground and contained three young and an addled egg, the latter pale green in color, probably paler than usual. Unfertilized eggs are often paler and smaller than the average. Dr. Heermann, in Pacific Railroad Reports, Vol. X, refers to the breeding of this species in the sandhills about San Francisco, but does not mention *T. ustulatus*, although he collected about three years in this State. The species I saw at Stockton, June 8 (Proceedings National Museum, 1879), was, like Dr. Heerman's, probably *T. ustulatus*. On that day I found a colony of small thrushes in a large willow thicket along the Calaveras River, but could not get a specimen. I saw them in the middle of the day when they were not singing. Without specimens, observations on the small thrushes have but little or no value. Dr. J. G. Cooper (Proc. Cal. Acad. Sci., 1875,

p. 190) says: "The notes given by me in the lower five lines of this page (Ornith. Cal., p. 4) belong properly to the next species [*T. ustulatus*], as it is scarcely probable that any of this [species] remain in the lower country of California, or even in the mountains in summer, unless above an elevation of 8,000 feet, as does its Rocky Mountain representative, var. *auduboni* (Baird). The song of that, and of the eastern race, var. *pallasii* Cab., being described as resembling that of the wood thrush (*T. mustelinus*), with which I am familiar. I am sure that I never heard it in the Sierra Nevada up to 8,000 feet altitude, nor in the forests of Washington Territory, and that of var. *nanus* cannot be very different. It is the winter thrush of California, common from September to May." "I was misled in giving *T. nanus* as the common summer thrush of California, both by its having been given by all previous authors as the only small brown thrush found in the State (*ustulatus* being limited to the north)," etc. I have not seen the species at nor south of San Diego later than April 8; this was at San Diego in the very wet, backward spring of 1884. Mr. Blaisdell saw it at Poway as late as April 12, 1885. My latest Stockton record is April 25, 1879, when snow was low down in the mountains. Mr. Proud last saw it at Chico April 28, 1884. Dr. J. C. Merrill (Auk, Oct., 1888, p. 365), took a female at Fort Klamath April 29, but did not again see the species until May 11, when after a few days of cold weather it was abundant. Mr. A. W. Anthony first saw it in the spring of 1885, at Beaverton, Oregon, on April 18. Dr. Williams noted its arrival at Fort Walla Walla April 27, 1885, and that it was common by May 15. Young were seen June 30.

Observations bearing on its southward migration are the following: Mr. Henshaw (Report Wheeler's Survey, 1879), says: "By the last of August it was found numerous along the foothills of the Cascade Range of Oregon" (east slope). I have noticed its arrival at the summit of the Sierra Nevada, lat. 39° 20' N., September 22, in 1878, September 25, 1885, and have seen a few in the Sacra-

mento Valley, in about the same latitude, by October first, but the species is not usually numerous in the valley until about a month later. Mr. Henshaw (Report Wheeler's Survey, 1876), says none were seen on Mount Whitney until the last of September. The migration was at its height from the fifth to the fifteenth of October.

Mr. Blaisdell first noticed this species at Poway on October 25, 1885. Dr. Cooper (Proc. Nat. Mus., 1879, p. 245) first saw it on Santa Catalina Island, October 30, 1861. Perhaps I should give full credence to Mr. C. H. Townsend's Mt. Shasta record (Proc. Nat. Mus., 1887, p. 231), although he did not get the individual seen July 25, 1883. Mr. Brewster (Auk, Oct., 1888, p. 365) says Dr. Merrill's Fort Klamath specimens were "Quite as gray as in average Colorado specimens of *auduboni*." The wing of the female measured 3.23; those of the three males 3.50, 3.55, 3.55, being much smaller than my Calaveras County specimens of *T. sequoiensis*. I do not know that I have ever heard the song of the dwarf thrush. The name of the dwarf thrush, *nanus*, is very appropriate for this form. Mr. Nelson (Alaska Report, 1877-1881, p. 218) says: "Since the Unalaska thrush was described, not a single specimen of any species of *Hylocichla* has been found on this island by the various naturalists who have visited its shores, a fact of itself calculated to raise suspicion as to the correctness of the identification of Gmelin's name." Stability of ornithological nomenclature is very desirable, but if there is the least shadow of a doubt concerning the applicability of Gmelin's harsh *aeonolascensis* to this thrush, the bird, the reader and writer should have the benefit of the doubt, and *nanus*, *guttatus*, *minor*, or almost any name should be substituted for it. Dr. Cooper recently wrote me: "I heard some years ago from Mr. W. A. Cooper that the dwarf thrush had been found breeding in the redwoods of Santa Cruz County. It may be your form or some other." Dr. Cooper thinks the Santa Cruz bird should be investigated, to which I cordially assent.

4. *Turdus aonalaschkæ auduboni* (Baird).

AUDUBON'S HERMIT THRUSH. — According to Ridgway's Manual of North American Birds, its habitat is the "Rocky Mountains, from northern borders of United States south to highlands of Mexico and Guatemala." Mr. Henshaw, in Report Wheeler's Survey, 1879, says: "During the past summer the important fact was ascertained that this form of the hermit thrush, instead of being strictly limited to the Rocky Mountains * * * * breeds along the eastern slope of the Sierras. During the summer of 1877, I heard in several of the sub-alpine valleys of Northeastern California, what were without doubt Audubon's thrushes, but failed to secure specimens. Here they were evidently not very numerous; but in the mountains back of Camp Bidwell the succeeding season, the same thrush was * * * * identified by shooting the bird. They were here very abundant, and at this date, July 19, the pine woods were filled by the sweet music of the males."

In 1884, Mr. F. Stephens informed me that it had been found breeding in the San Bernardino Mountains, but afterward said it might be the dwarf thrush, as he failed to get the parent of the eggs he found there—he had wounded and could not find her. He further said: "On looking over my skins, I find one which is Audubon's, that I shot near Campo, San Diego County, and one which is *very nearly intermediate between the dwarf thrush and Audubon's thrush.*" Col. N. S. Goss reported, for the Notes on Migration for the Pacific District, that he had found Audubon's thrush at Julian, San Diego County, altitude, 4,000 feet, on March 17, 1884. I made observations at Tehachapi Pass and in the adjacent mountains from March 27, 1889, to April 12, but was not able to find a single small thrush, which was the chief object of my visit, though I ascertained that many species enter the San Joaquin Valley from the Mojave Desert by that route, at an early date, without much regard to the temperature in the Pass, apparently knowing that a milder climate would soon be reached.

5. *Turdus sequoiensis* Belding.

BIG TREE THRUSH.—I should have added to the description of this bird, published in these Proceedings, June 11, 1889, that its iris is bluish-brown, its mouth and most of the mandible are yellow, the tip of the latter brown.

The male shot by me June 10, 1888, at close range, as it crossed a path when pursued by a small owl, was badly mutilated. Its wing was 3.80; tail, 3.25; tarsus, 1.16. The female shot June 25, 1883, is very pale and seems to be in faded nesting plumage. The two type specimens are, I think, in the best spring plumage, as the largest ovaries of the female were no larger than No. 1 shot. The small spots on the throat and breast appear to be a constant feature of this form, which I am confident is entitled to recognition, but it may prove to be a southern variety of *T. aonalaschke*, just as *T. a. auduboni* may be a southern variety of *T. a. pallasii*, though this is at variance with the almost unvarying rule, that the more northern variety of a species is the larger; or it may intergrade with *T. a. auduboni*, which has been reported from the Sierra Nevada of California by three excellent observers, each of whom got, I believe, but a single specimen, and Mr. Henshaw's July specimen must have been too much faded for positive identification; and possibly all three were identical with the Big Tree thrush.

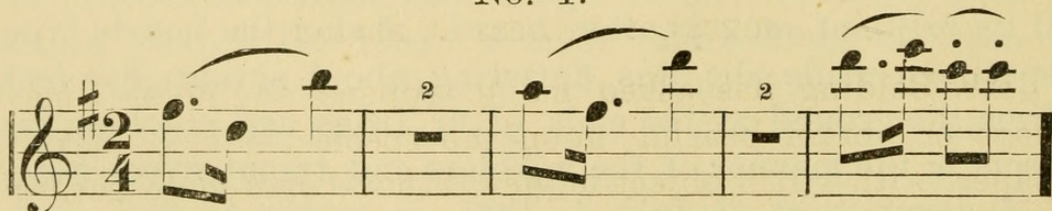
The latter inhabits dense thickets in deep forests and is apt to be overlooked. Sometimes it wanders at a considerable height through the foliage of the firs and other coniferous trees, when it is followed with much difficulty, even if its brilliant song is often heard. I shot the female type specimen while she was fluttering about seventy-five feet from the ground at the ends of fir twigs and catching insects in the manner of the warblers and tyrant flycatchers.

I spent most of July 4, 1881, in trying to find, with the assistance of a young hunting dog, the nest of a pair of these birds, which I had good reason to believe was in a certain hazel thicket. I failed to find the nest, probably

because I sought for it on the ground instead of in the shrubbery. Later I found the same pair, as I supposed, with their young within a few yards of this hazel thicket, shot one of the juveniles in spotted plumage and sent it to the Smithsonian Institute (No. 85,623 of that collection). I saw both parents frequently during the month of July and observed that they were gray or pallid. I was often within a few yards of them, but heard no complaint or note of any kind from them, nor am I certain that I have heard this thrush utter a call note. On a solitary occasion a male that was within a few yards of me expressed its displeasure at my presence and gaze by giving several squalls which resembled the complaining cries of *Pipilo chlorurus*, after which its two or more companions, that had been singing, were silent.

Its song was first heard in the spring of 1889, by J. Clarence Sperry, on May 12. The wonderful song of this bird I know to be much superior to the song of *T. mustelinus*, *T. fuscescens*, *T. ustulatus* and *T. u. swainsonii*. I never shot one of these sweet songsters without pangs of regret. While the songs of one individual may differ from those of another, the tone or voice of all is much alike and may be readily distinguished from those of *T. ustulatus* and *T. u. swainsonii*. The following examples, which I copied as they were uttered, will give some idea of its songs, though it is impossible to represent them in all their wild beauty on paper. Some songs had irregular intervals and could not be copied.

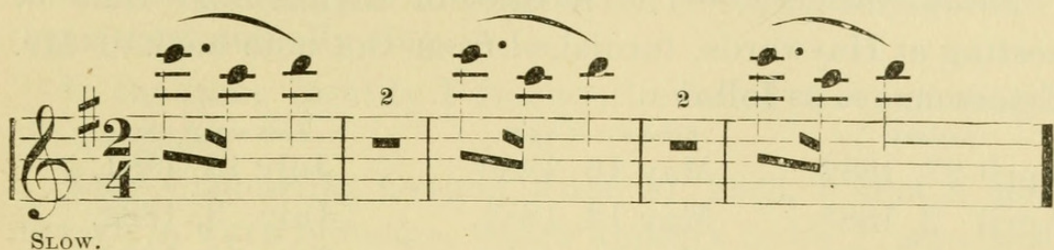
No. 1.



SLOW.

In the third group of notes, the third and fourth notes are in reality but one connected note, the latter portion of which is, in a measure, an echo of the third.

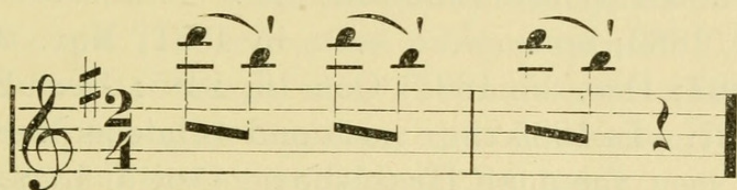
No. 2.



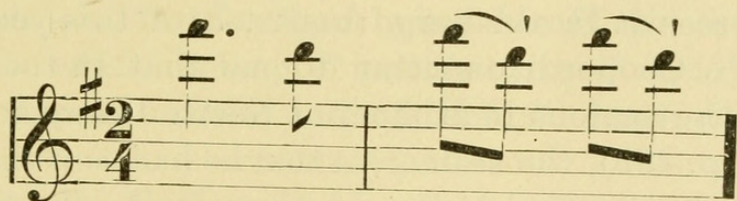
In No. 2 the middle note has nearly the effect of an appoggiatura, the third note of the group being explosive and ringing. "*Peek-a-boo!*" nearly represents the accent and divisions of time of the usual song.

One individual had among its songs or groups of notes, No. 3, which it frequently uttered.

No. 3.



No. 4.



No. 4 was a powerful, ringing, wild burst of melody. One song began too high for the voice of the minstrel, causing it apparently a painful effort, which was not pleasing to the ear, but its other notes were of the usual delicate quality.

NOTES BY WALTER E. BRYANT.

Mr. Belding has asked me to append any notes I may have or obtain bearing upon the species treated in this paper, with which object in view I have written to several correspondents for items and visited the dense wooded region south of Monterey, in search of small thrushes. The results are here given.

Turdus ustulatus.—The records of arrival and time of nesting at Haywards, furnished from the note book of Mr. Emerson, are as follows:

Arrival.	First set of eggs.	Last set of eggs.
April 27, 1882.	May 16, 1880.	July 12, 1881.
April 2, 1883.	May 12, 1881.	July 3, 1882.
April 12, 1885.	May 14, 1882.	July 12, 1884.
April 9, 1886.	May 11, 1883.	
April 15, 1887.	May 13, 1884.	
April 18, 1889.	May 19, 1885.	
	May 11, 1889.	

The latest bird was seen on September 18, 1884.

Turdus aonalaschkæ.—The arrivals of this species at Haywards, as noted by Mr. Emerson, are:

Dec. 18, 1880; none were seen in 1881; Nov. 28, 1882; Nov. 1, 1883; Dec. 25, 1884; Oct. 16, 1885; Dec. 20, 1886; Oct. 8, 1887. In 1885 they remained as late as March 28.

I have seen them at Healdsburg, Oct. 5, 1888, and am quite positive that I heard their single plaintive note among madrone trees at Healdsburg, August 7, of this year.

Dr. J. G. Cooper has written to me that in the "Additions and Corrections to History of North American Birds" (Vol. III, p. 499), the statement that he had sent skins of *T. nanus* (*T. aonalaschkæ*) to the Smithsonian Institution is erroneous; he says: "I sent the birds as *ustulatus swainsonii*, and they were from Saticoy, not Santa Cruz, whence I sent nests and eggs as of *T. nanus* (Vol. III., p. 20). I further noted these points in Proc. Cal. Acad. Sci., Vol. VI, p. 190."

Turdus sequoiensis.—I have compared five examples (four males) of the thrushes taken in Monterey County, July, 1889, with the types of Mr. Belding's new *T. sequoiensis*, to which they are probably referable, although not typical. They were collected in heavily wooded, deep cañons, and were found by quietly tracing the bird's song or by calling them with a screaming sound made with the lips. The notes of the Monterey County birds were simply lonely, plaintive

calls, and although in the region for nearly a week I did not hear them actually sing.

In the same locality I frequently heard the full song of *T. ustulatus*.

Near Cañonville, Oregon, June 11, 1883, I shot a small thrush in worn plumage, which appears to be *T. sequoiensis* (No. 1008, coll. of W. E. B.); the label is marked "*nanus*," in the handwriting of an Eastern authority, the skin being one of a small collection, which I carried East the following year, and at that time such specimens were supposed to be faded examples of the dwarf hermit thrush.

Mr. W. W. Price has recently taken two birds in the San Bernardino Mountains, which are by no means typical of *T. sequoiensis*, and seem to be intermediate between *T. sequoiensis* and *T. aonalaschke*. In my opinion *T. sequoiensis* will be found to merge into *T. aonalaschke* when sufficient material is brought together, and consequently will stand as *Turdus aonalaschke sequoiensis* (Belding).

The Big Tree thrush appears to have no close relationship to *T. a. auduboni*, further than being one of the rufous tailed group, to which belong *T. aonalaschke*, *T. aonalaschke auduboni*, *T. aonalaschke pallasii* and *T. aonalaschke sequoiensis*.

Mr. R. C. McGregor has searched in the Santa Cruz Mountains for *T. a. sequoiensis* without success, but it undoubtedly occurs there and is the same that I collected in Monterey County and the one which Mr. W. A. Cooper reported as "Breeding in the redwoods of Santa Cruz County."

Mr. William Proud, of Chico, has looked for the Big Tree thrush near there, and in a letter to Mr. Belding writes: "I heard the song of a thrush decidedly different from *H. ustulata*," the song "consisted of seven notes; the higher notes had a guttural sound, similar to some of those of *H. ustulata*."

In a letter dated August 4, 1889, Mr. Belding writes that he has "found a few of the Big Tree thrushes at the Sum-

mit [Placer County], and got a specimen July 22." The bird was a male, faded and worn; it measured, length, 7.40; extent, 12.10; wing, 3.80; tail, 3.10; tarsus, .15; bill from nostril, nearly .40. It was about fifty feet high in a leafless tree when shot. "This thrush," he further says, "is decidedly arboreal, quite as much as Townsend's Solitaire, and like it, goes from the ground well up into the large trees at a sharp angle."

Mr. Belding has sent me three young birds of *Turdus aonalaschkæ sequoiensis*, which he collected August 12 and 27 this year at Lake Tahoe, Cal. They are about full grown, and quite as dark as adults of *T. aonalaschkæ*. Dr. Cooper has hinted that *T. a. sequoiensis* may be but the summer plumage of *T. aonalaschkæ*, bleached out and otherwise changed in the dark but dry woods of the interior; but within a mile of the coast, in Monterey County, where dense fogs prevailed, I found this year birds that were unlike the winter plumage of *T. aonalaschkæ*, and referable only to *T. a. sequoiensis*, although not as pronounced as the type specimens.

Young. (No. 356, coll. of Cal. Acad. Sci., from Lake Tahoe, Cal., August 12, 1889. L. Belding). Above, olivaceous brown; each feather marked with a more or less distinct linear, obovate or guttate subterminal spot of light tawny buff. Rump and upper tail coverts, light ochraceous. Upper surface of tail, seal brown, uniformly lighter on under surface. Wings, clove brown, with lighter edging of outer webs. Band on under surface of wing, pinkish buff. Throat, sides of neck and jugulum, pale yellowish buff, distinctly darker on jugulum, the feathers marked with a terminal spot or edging of black, giving a heavily spotted appearance to the jugulum. Breast and abdomen, immaculate white, spotted on anterior portion and sides. Under tail coverts, cream color or nearly white. Wing, 91 mm.; tail feathers, 61.5 mm.; bill from nostril, 8 mm.; tarsus, 27.5 mm.



1890. "The Small Thrashes of California." *Proceedings of the California Academy of Sciences* 2, 57–72.

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