

9. XIPHISTER, gen. nov. (Fam. *Xiphisteridae*).

(*Xiphidion* Girard, U. S. Pac. R. R. Expl. Fishes, 119; preoccupied in Orthoptera; *Xiphidium*, Serv.)

As the name *Xiphidion* or *Xiphidium* is preoccupied for a genus of Orthoptera, the name *Xiphister*, of similar etymology, is proposed as a substitute. The typical species *Xiphidion mucosum*, Girard, may be known as *Xiphister mucosus*.

ON THE MIGRATIONS AND NESTING HABITS OF WEST-COAST BIRDS.

By J. G. COOPER, M. D.

Uniformity in the dates of arrival of birds and laying eggs has usually been considered among the "constants of nature" in the temperate zone. Where the distinction of seasons is well marked, these events are among the most reliable phenomena connected with the climate, and exceptional dates are noted down with particular interest.

It has, however, been ascertained that there is much less uniformity in the habits of the same species within the tropics. There being no changes of temperature, the division into wet and dry seasons, where existing, can alone influence them. It does so by regulating the flowering and fruiting of trees, etc., on which the food of birds directly or indirectly depends (except in the case of aquatic species), the rapacious kinds following the vegetivorous in their search for food.

Even on the border of the temperate zone, in Arizona and Florida (probably also in Texas), an approach to the irregularity of tropical habits has been observed, some species laying eggs in autumn, at the end of the rainy season, and many abandoning the migratory habits seen northward.

In California we might expect to find similar conditions, because of the mildness of the winters in the less elevated regions, giving us an almost subtropical climate. But it can only have an effect south of latitude 34°, in the lower part of the Colorado Valley, if anywhere, sufficiently marked to cause the birds to lay in autumn, though its influence is seen to some extent in the wintering of several species farther north than on the east coast.

As far south as frost extends, which is south of San Diego and perhaps to Fort Yuma, the habits of the temperate zone prevail. At Tucson, Arizona, however, where Captain Bendire noticed eggs laid in autumn, the advantage of being about thirty miles south of Fort Yuma is compensated for by the elevation being 748 feet greater. The more barren, almost desert character of the country near Fort Yuma is probably the reason why such habits among the birds are not noticed, perhaps also because no observers have looked for them at the right season. The only peculiar climatic influence observable in California is therefore

dependent on the alternation of wet and dry seasons, which prevails in less degree along the whole coast northward.

It is indeed the excess of rain until quite late in spring, which appears to prevent the earlier laying of eggs by some species that begin to lay in the east earlier than on this slope. This is noticeable among Hawks and Owls, and may also be expected with the Crossbills, Waxwings, and others breeding farther north, but of which no records exist for this coast. North of latitude 60°, however, where Professor Dall found so many eastern species mixed with the western, the division into wet and dry seasons is not marked, which may account for the breeding there of those eastern birds not found south of that latitude on this coast.

In California we find the influence of the rains causing considerable difference in dates of laying in various localities, where they end sooner or later. Thus at Fort Mojave, Colorado Valley, though the winter is colder than at San Diego, it is much drier, the climate, like that of Arizona, being wet in summer. I therefore found the same species laying much earlier at Fort Mojave, though the arrival of migratory birds was generally later, more so than the difference of latitude (one hundred and forty miles farther north) would account for. Many species are also found wintering there which do not remain along the rainy coast at that season.

At Haywood, on the east side of San Francisco Bay, I also found many species laying earlier and more abundantly than at Santa Cruz on the coast, forty-eight miles farther south, but more rainy. This last place is itself much more favorable to most species than the foggy cool promontory of Monterey, twenty-five miles southward.

Of the influence of climate in localities still farther inland I cannot state much from personal observation north of Fort Mojave, but have quoted some interesting dates for comparison, reported by Mr. Ridgway at Sacramento, though of less value in this connection than if he had been there earlier and later in the season.

On account of the great elevation and very different climate of Nevada and Utah, his observations there are of little value for comparison with Western California, though in some degree comparable with Fort Mojave.

The period at which rains cease being quite different in different years, we also find considerable variation in the arrival of some birds as well as in dates of laying at any locality selected. In some years the migrants seem to take a much more inland route northward than in others, not appearing along the coast until long after their comrades * have reached even to Alaska. Thus Mr. Dall records the arrival and laying of some species along the Yukon at about the same times they are recorded near the California coast.

The moderately dry parts of California, where, south of latitude 38°, trees are limited chiefly to the northeast slopes of hills and the banks of streams, we find to be the favorite breeding grounds of most

western birds (except of course the water-loving species), nests being both far more numerous and more easily found than in the thickly wooded regions of the mountains and northern coast. I have myself found more in one spring in the vicinity of Haywood, than during three seasons near the Columbia River. A similar abundance of nests has been noted by me along the sparsely wooded shores of the Upper Missouri River, and similar streams crossing the "Great Plains" on both sides of the Rocky Mountains. The scattered tree-growth of those regions, like that of an old cultivated country, is therefore most favorable for the increase of most land-birds, and if moderate protection instead of persecution is granted to them, they may always continue abundant even when the country is cultivated. The little fertile valleys scattered through the desert regions west of the Rocky Mountains are always found to contain most of the birds, and being also attractive to settlers, the abundance of birds has been wrongly attributed to their presence. The only way in which settlements aid in the increase of birds is by driving off or killing the rapacious kinds, and thus protecting such of the small species as do not injure the crops.

There is no doubt of the increase in numbers of many species about the settlements of California, from this cause, since 1849, but others, especially game-birds and birds of prey, have very much diminished under the effect of persecution by the gun, and poisoning, through the use of poisoned grain intended to kill vermin.

The influence of the more local attachments of the west-coast birds, which are so generally constant residents instead of migratory, is also very soon observed in the disappearance of a species from a neighborhood like Haywood, where they have been robbed of their nests and eggs for several seasons. The same thing seems to keep away migratory species to some extent, though other reasons may be found for their absence. As instances, the Blue-birds (*Sialia*) entirely disappeared in 1878, not returning even in winter; though I knew of several of their nests that were not molested in 1877. The migratory Lawrence's Goldfinch and Blue Linnet (*Cyanospiza*) also failed to appear in the breeding season of 1878, perhaps from former persecutions, and perhaps from taking another route northward, or from causes yet unknown.

As a rule scarcely any of the birds of California, south of latitude 38°, raise two broods in a season. When late broods are found they seem either to be replacements of lost broods, or are perhaps hatched by one parent while the other still takes care of a first brood, as observed by me in the case of a pair of House Wrens. This is the effect of the rapidity with which the breeding season passes, corresponding to the rapid but short growing season of vegetation after the frosts cease and before it becomes too dry. Caterpillars and other soft insects suitable for the young become scarce when the vegetation gets dry. Even swallows, which feed in the air, are obliged to catch young grasshoppers in some localities near the coast in June, so that they can raise

two broods of young. Apparently an effort to raise a third or a very late brood causes them often to abandon it to starve when they leave us in August.

In the following table I have included only those land-birds that are best observed in regard to habits, giving the records I have made at the chief localities where I have collected in the proper seasons, and adding such notes as seemed suitable, made by me in other localities, and by others where exact dates of the events are given. The object has been to give exact dates of the usual arrival and departure (with a few also quite exceptional), and the first laying of eggs noticed, as well as the latest when long after. A few quotations of observations in other regions are also given for comparison, but these are much fewer than desirable from the fact that the older authors neglected usually to give the *exact* dates, and where the *month* only is given a comparison of times through a range of twenty degrees of latitude is impracticable. The categories of "Resident," etc., refer only to the localities given in the general table.

The arrangement of localities being by date of collections is not exactly according to their relative positions in latitude.

My opportunities for observing in regard to most aquatic birds have been too few to be worth noting, the sea-shore and the great interior marshes or lakes not having been visited at the proper seasons, except in a few localities. Where it is practicable the dates of laying of the Gulls, Murres, and other birds whose eggs are collected for market, are found quite uniform, though showing the influence of early or late seasons in a certain degree. This makes them well worthy of record whenever opportunities are offered.

Name, season of residence, etc.	Camp Mojave, 1860-61; lat., 35°; alt., 5,000 ft.	San Diego, 1861-62; lat., 32° 30'; alt., 50 ft.	Santa Cruz, 1865; lat., 37°; alt., 50 ft.	Saticoy, 1872-73; lat., 34° 27'; alt., 50 ft.	Haywood, 1875-76; lat., 37° 40'.	Haywood, 1877-78; alt., 50-100 ft.	Other localities and remarks.
1. <i>Turdus naevius</i> . Winters. (Summers in Alaska to lat. 60°; Dall.)	Leave April 1.			Arrive Nov. 5.	Ar. Oct. 12.	Lv. May 1.	Catalina I. Oct. 30, 1861. "Not at Camp Bowie, Ariz., till Oct. 19, '74." <i>Hensh.</i>
2. <i>Turdus ustulatus</i> . Summer.		Ar. April 25.	Nest May 4.	Ar. May 8. Lv. Oct.	Ar. Apr. 29, '75. Ar. Apr. 23, '76. Nest May 14 to June 27, '76. Lv. Sept. 20, '75.	Ar. Apr. 26, '77. Ar. May 6, '78. N. May 24, '77, to June 24, '77. N. May 25, '78. Lv. Sept. 7, '78.	Probably raises only one brood in Cal. Ar. Columbia River, May 1. N. June 15 to July 13. Lv. in Sept. '54.
3. <i>Turdus merula</i> . Winter. (Summers from mouth Columbia River to lat. 65°.)			Ar. Oct. Lv. Apr. 1.		Ar. Oct. 23, '76.	Ar. Oct. 29, '78.	
4. <i>Harporhynchus californicus</i> . Resident.				N. May 28.			N. San José V'y., May 8, '63.
5. <i>Sialia mexicana</i> . Resident.	N. Feb'y?				N. Mar'h 12, '75. N. Apr. 12, '76.		N. Santa Cruz Mts., 3,000 ft., Apr. 29, '64; Santa Barbara, about Apr. 6.
6. <i>Psaltriparus minimus</i> . Resident.		N. Apr. 25.			N. May 15, '75. N. May 23, '76.	N. Apr. 11, '77. N. May 10, '78.	"N. Columbia R., May 15, '35." <i>Nuttall.</i>
7. <i>Thryothorus bewickii</i> , var. <i>splendens</i> . Resident.		N. Apr. 15.				N. May 18, '77. N. May 23, '78.	Have seen fledged young two weeks earlier at Haywood.
8. <i>Troglodytes domesticus</i> , var. <i>parkmanni</i> . Resident south of lat. 37°.		N. Apr. 20.			Ar. Mar. 15, '75. N. May 7, '75. N. Apr. 12, '76.	Ar. Mar. 16, '77. N. Apr. 26, '77.	Ar. Puget's Sound, Apr. 20, '54. Ar. San Francisco, May 15, '65. "N. Vancouver's I., May 18, '52." <i>Hepburn.</i>
9. <i>Dendroica aestiva</i> . Summer.	Ar. Apr. 15.		Ar. Apr. 12.	Ar. Apr. 17. N. May 24.	Ar. Apr. 20, '75. N. May 13, '75. Lv. Oct. 15, '75. Ar. Apr. 22, '76. N. May 14, '76.	N. May 12, '77. N. May 13, '78. to June 15, '78.	Ar. Monterey, Apr. 18, '74. "Ar. Puget's Sound, May 3, '56." <i>Swedge.</i> "Ar. lat 60° Alaska, May 16, '71." <i>Dall.</i>
10. <i>Dendroica auduboni</i> . Winter. (Locally, summer.)		Lv. March.	Ar. Sept. 25. Lv. Apr. 15.	Ar. Oct. 11. Lv. Apr. 10.	Ar. Sept. 29, '75.	Lv. Apr. 15, '77.	N. and E. seen taken in S. F. Co., Apr. '77; ♀ killed! Young, Sierra Nevada, July, 1,000 ft.

Name, season of residence, etc.	Camp Mojave, 1860-61; lat., 38°; alt., 500 ft.	San Diego, 1861- 62; lat., 32°; 30'; alt., 50 ft.	Santa Cruz, 1865; lat., 37°; alt., 50 ft.	Saticoy, 1872- 73; lat., 34°; 27'; alt., 50 ft.	Haywood, 1875- 76; lat., 37°; 40'.	Haywood, 1877- 78; alt., 50-100 ft.	Other localities and remarks.
11. <i>Dendroica nigrescens</i> . Spring and autumn (only 1).	Ar. Apr. 20.....	Ar. Apr. 20.....	.....	.....	Ar. Apr. 10, '75..	Ar. Apr. 26, '77..	Ar. Monterey, Apr. 18, '74. "Pur- get's Sound, May 4, '56." <i>Stockey</i> . "Tejon Pass, Oct., '54." <i>Heermann</i> . "Tejon Mts., Aug., '75." <i>Hensb.</i>
12. <i>Dendroica townsendi</i> . Spring and autumn (breed 1).	.....	Ar. Apr. 21.....	.....	.....	Ar. May 6, '75.. Seen Sept. 12. Ar. May 5, '76. Lv. Dec. 5, '76.	Ar. May 6, '78..	"Seen Columbia R., Oct. 28, '35." <i>Townsend</i> . "Seen ? Columbia R., Dec. 25, '54. Shot, Mount- ain View, Cal., Nov., '55. <i>D. occidentalis</i> . The obtaining of this species at Petaluma, Cal., given as Apr. 1, '56 (Sam- uels), in P. R. R. Rep., IX, is changed to May 1, in "N. A. Birds," which is more proba- ble. Very rare near the coast.
13. <i>Icteria viridis</i> , var. <i>longi- canada</i> . Summer.	Ar. Apr. 20..... N. May 19.	Ar. Apr. 26.....	Ar. Apr. 27..... Lv. Sept.	Ar. Apr. 17..... Lv. Sept. 30.	N. May 20, '76..	Ar. Apr. 26, '77..	"N. Sacramento, June 11 to 17, '67." <i>Ridgway</i> .
14. <i>Mniotiltus pusillus</i> , var. <i>pallidus</i> . Summer. (A few winter?)	.....	Ar. ? Apr. 16.....	Ar. ? Apr. 20.....	Ar. Mar. 18.....	Ar. Mar. 31, '75.. N. June 17, '75.	Ar. ? Apr. 4, '77.. N. May 10, '77.	Seen at Puget's Sound, W. T., Apr. 8, '54. "N. Yukon, R., May 20, '71." McDougall. Seen Catalina I., Oct. 30, '61.
15. <i>Hirundo erythrogaster</i> , var. ? <i>horreorum</i> . Summer.	Ar. Mar. 25.....	Ar. Mar. 18.....	Ar. Mar. 21..... Lv. Sept. 15.	.....	Ar. Mar. 20, '75.. Lv. Sept. 20, '75. Ar. Mar. 23, '76.	.....	"N. Apr. 30 to Aug. 4 at S. F." <i>Hepburn</i> . Raises two broods.
16. <i>Hirundo fulva</i> , var. <i>luni- frons</i> . Summer.	.....	Ar. Mar. 15.....	Ar. ? Apr. 10..... N. Apr. 20 to July 5.	.....	Ar. Mar. 24, '75.. Ar. Mar. 27, '76.	Ar. Mar. 28, '78..	In 1877 very dry, and few seen the whole season. A few stay till October. Raise two broods, but leave many young to die.
17. <i>Hirundo bicolor</i> , var. <i>ves- pertina</i> . A few residents S. of lat. 39°.	Ar. Feb. 21.....	.....	Lv. Sept. 2.....	N. May 14.....	Ar. Jan. 28, '75..	Ar. Jan. 30, '77..	"Shot S. F., winter '54." <i>Wells</i> . "N. Sacramento, May, '53." <i>Hepburn</i> . Two broods?
18. <i>Hirundo thalassina</i> . Sum- mer.	.....	Ar. Mar. 19..... Lv. Oct. 5.	.....	.....	.....	.....	Ar. San José VY., Mar. 15, '64. "Puget's Sound, May 10, '66." <i>Stockey</i> .

19. <i>Progne subis</i> . Summer.....				Ar. Mar. 17..... (Stragglers?)					"Ohio R., Mar. 15," <i>And.</i> S. F., Apr. 29, '63. N. Monterey, Apr. 25, '74.
20. <i>Lanius ludovicianus</i> , var. <i>excubitoroides</i> . Resident.	N. Mar. 19 to Apr. 4.	N. Apr. 12 to 20.....			N. Mar. 30, '75..... N. to June 2, '76.	N. May 19, '77..... N. to June 10, '78.			Perhaps raises two broods in some years.
21. <i>Carpodacus frontalis</i> , var. <i>rhodocolpus</i> . Resident.	N. May 8.....	N. Mar. 19.....	N. Apr. 10.....		N. Apr. 2, '75..... N. June 2 to 21, '76.	N. Apr. 14, '77.....			Raises two broods, perhaps 3 at times.
22. <i>Chrysomitris tristis</i> . Some resident.		N. May to June.....		N. Apr. 18.....	N. June 24 to June 28, '76.	N. May 21, '77..... N. to June 13, '78.			"N. Sacramento, June 6 to 29, '67," <i>Ridgway</i> . "N. New England, July 10 to Sept." <i>Brewer</i> .
23. <i>Chrysomitris psaltria</i> . Resi- dent.					N. Apr. 16, '75..... N. Apr. 29 to June 29, '76.	N. Apr. 24 to June 15, '78.			This and last species may raise two broods.
24. <i>Chrysomitris lawrencii</i> . Some resident S. of lat. 38°.					Ar. Mar. 27, '76..... N. May 4, '75.	Ar. Mar. 26, '77..... N. June 2, '77.			None seen after April in 1878.
25. <i>Passerculus sandwichensis</i> , var. <i>atlandicus</i> . Winter (some resident?). Var. <i>an- thracinus</i> . Resident S. of lat. 37°.				Ar. Oct. 25..... Lv. Apr.	Ar. Nov. 1.....				Near Columbia R., Mar. to Oct., '54 (<i>atlandicus</i>). Sept. to Apr. (<i>sandwichensis</i>). A few of <i>atlandicus</i> probably breed near the coast, lat. 35° (and on mountains?).
26. <i>Chondestes grammacus</i> . Resi- dent S. of lat. 36°.						N. May 1, '77..... N. May 29 to June 20, '78.			"N. Sacramento, Cal., June 8 to 29, '67," <i>Ridgway</i> .
27. <i>Zonotrichia leucophrys</i> , var. <i>gambeli</i> . Resident N. of lat. 37°. Winter only south- ward.	Lv. May 15.....	Ar. Oct. 15.....	N. May 7.....	Ar. Sept. 29..... Lv. Apr. 20.	Ar. Sept. 20..... Lv. Apr. 15.	Ar. Sept. 30, '78..... Lv. Apr. 20, '77.			Winter birds are chiefly var. <i>intermedia</i> . Seen on Catalina I., Oct. 30, '61. Ar. Columbia R., Mar. N. June. Lv. Oct., '54.
28. <i>Zonotrichia coronata</i> . Win- ters (only?).									"Breeds McCloud R., Cal." <i>Brewer</i> , 1878. Seen at Mon- terey, Apr. 29, '74. The nest eggs described in Heer- mann's report as from Sacra- mento were probably those of <i>Chondestes</i> , description trans- posed from his next paragraph.

Name, season of residence, etc.	Camp Mojave, 1860-61; lat., 35°; alt., 5,000 ft.	San Diego, 1861- 62; lat., 32° 30'; alt., 50 ft.	Santa Cruz, 1865; lat., 37°; alt., 50 ft.	Sticov, 1872- 73; lat., 34° 27'; alt., 50 ft.	Haywood, 1875- 76; lat., 37° 40'.	Haywood, 1877- 78; alt., 50-100 ft.	Other localities and remarks.
29. <i>Junco oregonus</i> . Resident in mountains and at Monte Rey. "Teton Mts., Aug., 1875." <i>Henshaw</i>.	.....	Lv. Apr. 1. ....	.....	Lv. Apr. 10 .....	.....	.....	N. foot Santa Cruz Mts., May 1; 3,000 ft. alt., May 30, '64 N. Sierra Nev., 6,000 ft. alt., July 28, '70.
30. <i>Spizella socialis</i> , var. <i>arizonensis</i> . Summer. Winter in Colorado Valley, lat. 35°, and southward.	.....	Ar. ? Apr. 30	Ar. Apr. 11	Lv. Nov. 5	Ar. Apr. 2, '75. N. May 20, '75. Ar. Apr. 9, '76. N. May 22, '76.	Ar. Mar. 22, '77. N. Apr. 27, '77.	Ar. S. F., Apr. 4, '63. "A. F. Puget's Sound, April, '56." <i>Stackley</i> .
31. <i>Melospiza fasciata</i> , var. <i>heermanni</i> . Resident.	Var. fallax. N. May 19.	.....	N. Apr. 15 to July 10.	N. May 15.	N. May 7, '75. N. May 16, '76. to June 22, '76.	N. May 12, '77. N. May 15, '78.	Supposed young seen at Santa Cruz, Apr. 7, '65. Those of var. <i>gairana</i> in May at Puget's Sound, '54.
32. <i>Melospiza lincolni</i> . Migratory (summer on mountains).	.....	Lv. Mar. 26. ....	.....	Ar. Nov. 15. Lv. Mar. 23.	.....	Lv. Mar. 15, '77.	All probably winter S. of lat. 35°. "Nests, Alaska, May to July." <i>Dall</i> . N. 7,000 ft. alt. in lat. 39°, July 27, '70.
33. <i>Passerella townsendi</i> . Winter.	.....	.....	.....	Ar. Nov. 11. Lv. Apr. 13.	Ar. Nov. 15, '75.	Ar. Nov. 9, '79.	Ar. S. F., Oct. 20, '63.
34. <i>Guiraca melanoccephala</i> . Summer.	.....	Ar. Apr. 12.	Ar. Apr. 12.	Ar. Apr. 12.	N. May 14, '75. N. May 18, '76.	Ar. Apr. 10, '77. N. May 5, '77. N. May 13 to June 16, '78.	N. San Josec Vv., May 12, '74. Probably only raise one brood.
35. <i>Guiraca caerulea</i> . Summer.	Ar. May 6. ....	.....	Ar. Apr. 12.	Ar. Apr. 17.	Ar. ? May 1, '76.	.....	N. Sacramento, June 14, '65. Do., "June 11 to 20, '67." <i>Ridgway</i> .
36. <i>Cyanospiza amana</i> . Summer.	.....	Ar. Apr. 22.	Ar. Apr. 12.	Ar. Apr. 17.	Ar. Apr. 20, '75. N. May 15, '75. Ar. May 1, '76. N. May 24, '76. to June 18, '76.	Ar. Apr. 26, '77.	N. Santa Barbara, May 6, '63. Ar. Puget's Sound, May 15, '55. None seen in '78. Probably only one brood.
37. <i>Pipilo maculatus</i> , var. <i>meruloides</i> , mixed with var. <i>Oregonus</i> . Resident.	.....	.....	.....	.....	N. June 3, '76.	N. Apr. 29, '77. N. June 18, '77. (3 feet up in brush.)	N. Santa Cruz Mts., 3,000 ft. alt., May '28, '64 N. S. F., June 10, '64. Probably but one brood.

38. <i>Pipilo fuscus</i> , var. <i>crissalis</i> . Resident.	N. Apr. 10.....	N. Mar. 17 to May 8.	.....	N. Apr. 9, '75.. N. Apr. 5 to June 24, '76.	N. Apr. 14, '77 to June 24, '77.	May raise two broods.
39. <i>Anclus pheniceus</i> , var. <i>gubernator</i> . Resident.	.....	.....	.....	N. Apr. 18, '75..	N. May 4, '77.....	N. Santa Barbara, Apr. 25, '63. To 3,000 ft. on Santa Cruz Mts. "N. near Saticoy to June 21, '75." <i>Leishan</i> .
40. <i>Agelaius tricolor</i> . Resident.	.....	.....	N. May 22.....	.....	.....	"N. Wash. Ter., June 19, '56." <i>Stockley</i> . N. San José VY., May 18, '64.
41. <i>Sturnella magna</i> , var. <i>neg- lecta</i> . Resident.	.....	.....	.....	N. May 7, '76.....	N. May 8, '77.. N. May 10, '78.	"Ar. Puget's Sound, May 15, '54. Ar. Dallas, Oregon, May 7, '55." <i>Stockley</i> .
42. <i>Icterus bullockii</i> . Summer.	Ar. Apr. 1..... N. Apr. 17.....	Ar. Apr. 3.....	Ar. Mar. 22..... Lv. Sept. 15. (1 seen Nov. 25.)	Ar. Mar. 31, '75.. N. May 20, '75. Ar. Apr. 3, '76.	Ar. Mar. 19, '77.. N. May 18, '77. Ar. Mar. 31, '78. N. May 28 to June 20, '78.	
43. <i>Scolecophagus cyanocephala</i> . Resident.	.....	N. Apr. 16 to May 20.	.....	N. Apr. 23, '76 to June 18, '76.	N. Apr. 14, '77.	N. Santa Barbara, May 1, '63. Sometimes two broods; scarce in '78.
44. <i>Corvus americanus</i> , var. <i>caurinus</i> . Resident.	.....	N. Apr. 23.....	.....	.....	.....	Very locally distributed.
45. <i>Cyanocitta californica</i> . Res- ident.	.....	N. Apr. 8.....	.....	N. May 20 to June 21, '76.	N. June 10, '78..	"In '34 bred at Columbia R." <i>Nuttall</i> . Not recently ob- served there.
46. <i>Tyrannus verticalis</i> . Sum- mer.	Ar. Apr. 24.....	Ar. Mar. 20..... Lv. Oct.	Ar. Mar. 27..... N. Apr. 20 to June 29. Lv. Oct. 1.	Ar. Apr. 12, '75.. N. May 22, '75. Ar. Mar. 26, '76. N. May 15, '76.	N. May 15 to June 29, '77.	N. Santa Barbara, May 12, '64. N. Sacramento, June 11 to 20, '67." <i>Ridgway</i> .
47. <i>Tyrannus vociferans</i> . Some winter S. of lat. 37°.	.....	N. Mar. 29.....	.....	.....	.....	One nest found in hole in side of house.
48. <i>Melospiza crinitus</i> , var. <i>cinerascens</i> . Summer (chief- ly).	(A few winter) Ar. Mar. 10.	Ar. Apr. 17.....	.....	.....	N. May 11, '77.. N. June 3 to June 20, '78.	Raises two broods.
49. <i>Sayornis nigricans</i> . Resi- dent.	Lv. Mar. 25..... (None in sum- mer?)	N. Mar. 27.....	N. Mar. 29.....	N. Apr. 15, '76..	N. Apr. 14, '77, to June 17, '78.	
50. <i>Contopus richardsonii</i> . Summer.	Ar. ? May 20.....	Ar. Apr. 16.....	Lv. Sept. 28.....	Ar. ? May 20, '77..	.....	Ar. Monterey, May 11, '74. "Petaluma, Cal., Apr., '56." <i>Sparrows</i> . "N. Sacramento, June 10 to 24, '67." <i>Ridgway</i> .

Name, season of residence, etc.	Camp Mojave, 1860-61; lat., 35°; alt., 500 ft.	San Diego, 1861- 62; lat., 32° 30'; alt., 50 ft.	Santa Cruz, 1865; lat., 37°; alt., 50 ft.	Satiboy, 1872- 73; lat., 34° 27'; alt., 50 ft.	Haywood, 1875- 76; lat., 37° 40'.	Haywood, 1877- 78; alt., 50-100 ft.	Other localities and remarks.
51. <i>Fempidonax flaviventris</i> , var. <i>difficilis</i> . Summer.	Ar. ? Apr. 15..... Lv. Oct.	Ar. Mar. 13.....	Ar. Mar. 18.....	Ar. Mar. 31, 75. N. Apr. 27, 75. Ar. Apr. 2, 76. N. May 13 to 20, 76.	Ar. Mar. 16, 77. N. Apr. 21, 77. N. May 6, 78. Lv. Nov. 1, 79.	Ar. Pigeon's Sound, Apr. 25. Lv. Sept. 1, '55.
52. <i>Chondestes vanzoi</i> . Summer.	Ar. Apr. 26, '72..	Ar. May 4..... Lv. Oct. 5.	Ar. Apr. 21.....	.....	.....	Not yet known to build in chim- neys, or in towers.
53. <i>Setophorus rufus</i> . Sum- mer. (Part of the California birds may be var. <i>Menashaui</i> , <i>Ellioti</i> .)	Ar. Feb. 5.....	Ar. Mar. 9, '65..	Ar. ? Mar. 18..... N. Apr. 9 to May 20.	Ar. Feb. 16, 75.. Ar. Feb. 18, 76. N. May 24, 76.	Ar. Feb. 16, 77. N. Apr. 17 to June 9, 77.	Ar. Columbia R., Mar. 10, '54. " N. Columbia R., May 10, '56." <i>Stackley</i> .
54. <i>Colaptes auratus</i> . Resident southward.	N. Feb. 20, 75. N. Feb. 16 to June 24, 76.	N. Feb. 9 to May 30, 77.	May raise two broods.
55. <i>Picus villosus</i> , var. <i>harrisi</i> , Resident.	N. May 18, 77..	N. Santa Barbara, May 8, '64. " Var. <i>villosus</i> has two broods in the south." <i>Aud.</i>
56. <i>Picus nuttalli</i> . Resident.	N. Apr. 20.....	.....	.....	.....	.....	N. Monterey, May 12, '74. " Young Santa Barbara, May 1, '43." <i>Gambel</i> .
57. <i>Colaptes mexicanus</i> . Resi- dent.	N. Apr. 15.....	.....	.....	N. May 7, 75. N. May 10, 76, to May 27, 76.	N. Apr. 23, 77.	N. Santa Barbara, May 1, '63.
58. <i>Strix flammea</i> , var. <i>ameri- cana</i> . Resident.	N. Apr. 4, 75. N. Apr. 14 to May 12, 76.	N. Apr. 13, 77..	" N. Florida at all seasons; in South Carolina, Sept. 15, '33." <i>Aud.</i> !
59. <i>Troglodytes virginianus</i> . Resi- dent.	N. Mar. 18.....	.....	.....	.....	N. Apr. 24, 77..	" N. Yukon R., Alaska, Apr. 10." <i>Kernicott</i> . " N. Mass., Feb." <i>Judson</i> . " N. Penn., Feb." <i>Jackson</i> .
60. <i>Scops asio</i> , var. <i>maccalli</i> . Resident.	N. May 17, 76..	N. Apr. 14, 77. N. May 2, 78.	N. Santa Barbara, Apr., '64.
61. <i>Otus brachyotus</i> , var. <i>vul- sonianus</i> . Resident.	N. Mar. 25.....	.....	.....	.....	.....	" N. in British America, Apr. to July, two broods." <i>Reh- ardson</i> .

62. <i>Falco sparverius</i> . Resident.					N. Apr. 10, '75. N. Apr. 10, '76.	N. Apr. 21, '77.
63. <i>Buteo borealis</i> , var. <i>calurus</i> . Resident.	N. Mar. 28.					N. Apr. 15, '77. N. Apr. 26, '78.
64. <i>Circus cyaneus</i> , var. <i>hudsonius</i> . Resident.	N. Apr. 10.				N. May 28.	
65. <i>Columba fuscata</i> . Resident.			N. May 20, 1864, in nests, 3,000 ft. alt.			N. May 15, '78.
66. <i>Zenaidura carolinensis</i> . Resident S. of lat. 38°.	N. Apr. 25.		N. May 25.			N. May 12, '77. N. May 20, '78, to June 18, '78.
67. <i>Lophortyx californicus</i> . Resident.		N. Apr. 22.				N. Apr. 29, '77. Second laying (?) near Oakland, July 18, '74.

68. *Ardea herodias*. Resident. Nests near San Diego, Apr. 24.

69. *Egialitis cantiana*, var. *nitosa*. Resident. N. San Pedro, May 22, '62. "N. Santa Barbara to July, '75." *Henshaw*.

70. *Anas boschas*. A few bred near coast. Female shot near San Diego, Apr. 24, '62, with nearly mature eggs. Eggs at Columbia R. and Puget's Sound, in June, '53 and '55.

71. *Querquedula cyanoptera*. Resident. A female shot June 22, '61, near San Luis Rey, lat. 34° 20', with mature egg in it.

72. *Larus occidentalis*. Resident. "First eggs, Farallone I., May 6, '63, May 13, '64." Continue to lay until July at least.

73. *Uria lomvia*, var. *californica*. Resident. "First eggs, Farallone I., May 29, '63, May 17, '64; continuing till Aug." These dates I got from the light-house keeper, who also said that the Murres were absent from the islands between Nov. and Feb., but I saw none of them as far south as Santa Barbara. Exact dates for the eggs of other birds found laying on these and more southern islands in May and June have not yet been obtained.