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Birds of the Pacific slope of Los Angeles



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PASADENA ACADEMY OF SCIENCES.
PUBLICATION NO. II.

BIRDS

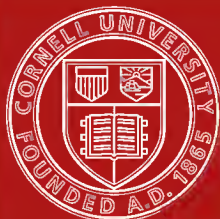
OF THE PACIFIC SLOPE OF

Los Angeles County.

BY

JOSEPH GRINNELL.

PRESS OF G. A. SWERDFIGER
PASADENA, CALIFORNIA.
MARCH, 1898.



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PASADENA ACADEMY OF SCIENCES.
PUBLICATION NO. II.

BIRDS

OF THE PACIFIC SLOPE OF

Los Angeles County.

A LIST WITH BRIEF NOTES.

BY

JOSEPH GRINNELL, A. B.,

Assistant Instructor in Biology, Throop Polytechnic Institute.

PRESS OF G. A. SWERDFIGER
PASADENA, CALIFORNIA.
MARCH, 1898.

Pasadena Academy of Sciences,

PASADENA, CALIFORNIA.

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INTRODUCTION.

The present list is intended to include all birds which have been so far proven to occur within the limits of the region under consideration. Besides their common and scientific names, brief notes are added on their comparative abundance and distribution; definite dates of arrival and departure, in the cases of migratory birds; the extent of the breeding season, giving exact dates and citing extreme instances.

No species or subspecies has been entered except upon the best of evidence. Thus many, especially water birds, which I am certain do occur, have been excluded because specimens have not been actually secured and properly identified. All notes have undergone careful consideration and if the least doubt has existed as to their authenticity, they have been stricken out. Thus certain recently recorded breeding notes have not been admitted on account of a doubt as to the identity of the species in question, although I could not prove it to have been wrong.

All species and subspecies, concerning the relationship of which there was any uncertainty, have been carefully looked up or submitted to the best authorities for verification. In case of slight races, comparative series have been examined, and their status as accurately as possible determined.

The present list, with the accompanying notes, is the result mainly of observations made by members of the Southern Division of the Cooper Ornithological Club, and cover little more than the past six or eight years, a very short time as compared with the years of careful observation carried on in some of the Eastern states. Yet the results of our work are so favorable that it is hoped we are not judged conceited or hasty in publishing at least this annotated list.

The region dealt with may seem to be rather ill-defined, but I think that, as restricted, it comprises a neat little geographical area, quite distinct from the surrounding country. It is very seldom that faunal areas coincide with political divisions, and frequently a state or county may lie in parts of two or more entirely different regions, as in the case of Los Angeles County, which is about half and half in the desert and in the Pacific district.

As indicated by the title of this paper, the region here dealt with is the portion of Los Angeles County lying southwest of the divide between the desert and the Pacific slopes. The lower part of Orange County lying west of the Santa Ana mountains is also included, as it is topographically identical with the contiguous portion of Los Angeles County.

The region under consideration presents considerable variation as regards topographic characters, and to this fact may be attributed the large number of birds found in so limited an area. It is approximately sixty miles square in extreme dimensions. Beginning at the seacoast, there is a gradual rise to the base of the main mountain ranges when there is an abrupt elevation to the divide, which varies from 4000 to 9000 feet in altitude. Along the coast there are several bayous with extensive salt marshes. A little further inland, in the artesian well districts

and along the streams, there are numerous fresh water ponds and swamps. The plains which comprise the major part of this region, extend almost unbrokenly, gently sloping up to the base of the mountains. However, on the eastern and western margins are ranges of hills or low mountains, furrowed by ravines and canyons. The dry, elevated slopes lying along the base of the Sierra Madre range, at an elevation of 600 to 1200 feet, I have termed the mesa region in distinction from the lower plains lying toward the coast. The high mesas are crossed by broad sandy washes and arroyos, and thus more nearly resemble the desert on the opposite side of the mountains. The brush-covered foot-hills rise in successively higher spurs and ridges, culminating in the lofty mountain ranges which form the desert divide. The higher mountains are clothed with heavy coniferous forests, while the canyons are lined with alders and sycamores. Extensive oak forests cover portions of the mesas and lowlands, especially along the western border of the county.

The water birds known to occur around the neighboring islands of Santa Catalina and Santa Barbara, and in the intermediate Santa Barbara Channel, are of course considered as belonging to the Los Angeles County fauna, but the land birds of the mainland only are included. The water birds of this county have been given but very little attention. Mr. A. M. Shields, to whom I am greatly indebted for notes on the major part of the game birds, has in fact done almost the only work in that line. The sea birds can be but poorly represented, when we consider the number which should and undoubtedly do occur along our coast and in the adjacent ocean channel. The land birds, however, I believe to be very well covered, at least those of regular occurrence, and besides these it will be noted that there are several rather unexpected stragglers.

It is hoped that this initiatory effort at cataloguing our native birds will be a basis for further and more extended observations in this comparatively little known region.

I wish to extend my thanks especially to Messrs. Frank S. Daggett, Horace A. Gaylord and G. F. Morcom for aid and suggestions and for critically reading the manuscript. I am also indebted to the following observers for more or less extended local lists or notes: Ralph Arnold, Walter E. Bryant, Lee Chambers, A. J. Cook, Evan Davis, Chas. E. Groesbeck, Frank J. Illingworth, Frank B. Jewett, Will B. Judson, Harry J. Leland, A. I. McCormick, Virgil W. Owen, Earl D. Parker, Howard Robertson, Edward Simmons, Frank Stephens, Harry S. Swarth and M. L. Wicks, Jr.

For identification of specimens I owe my sincerest thanks to Prof. Robert Ridgway and Mr. William Palmer of the National Museum, and to Messrs. A. W. Anthony and William Brewster.

Finally, to the Pasadena Academy of Sciences, I express my gratitude for enabling me to publish this paper.

Pasadena, California,

February 21, 1898.

JOSEPH GRINNELL.

Birds of the Pacific Slope of Los Angeles County.

1—1.* *Aechmophorus occidentalis* (Lawr.).

Western Grebe.

Tolerably common winter visitant along the coast, and occasional in the interior on the larger ponds. A disabled individual of this species was found by Arthur Hewitt on one of the streets of Pasadena, Feb. 21, '95.

2—4. *Colymbus nigricollis californicus* (Heerm.).

American Eared Grebe.

Occasional in summer on the larger fresh water ponds, and in winter along the coast. I found it numerous at Catalina Island in the last week of December, '97. It breeds at Elizabeth Lake in the northern part of the county, and abundantly at Bear Valley Lake in the San Bernardino Mountains. W. H. Wakeley has an immature male of this species in perfect albino plumage, shot near San Pedro, Sept. 30, '86.

3—6. *Podilymbus podiceps* (Linn.).

Pied-billed Grebe.

Common resident on ponds and lagoons throughout the lowlands. It appears in the fall in localities where it is not seen at other times; V. W. Owen has taken specimens at that season on a reservoir at Garvanza. Breeds in May.

4—7. *Urinator imber* (Gunn.).

Loon.

Tolerably common along the coast as well as inland on fresh water ponds in midwinter. For several years, before the reservoirs in North Pasadena were cemented, Loons were of regular occurrence, subsisting on the fish which were then abundant in the reservoirs. One bird in particular became very tame and was regularly fed by the "zanquero" until it disappeared in the spring.

5—10. *Urinator pacificus* (Lawr.).

Pacific Loon.

Tolerably common midwinter visitant along the coast. A. M. Shields shot an adult male specimen at Nigger Slough in January, '93. I found it common at Catalina Island in the latter part of December, '97, and took two specimens.

6—11. *Urinator lumme* (Gunn.).

Red-throated Loon.

Tolerably common winter visitant along the coast. F. S. Daggett took a specimen at San Pedro, Jan. 4, '96, and several others were seen. I have noted it in the spring as late as the first week in April.

* Numbers and nomenclature are according to the A. O. U. Check-list.

7—12. *Lunda cirrhata* Pall.

Tufted Puffin.

I observed a few in May, '97, at Santa Barbara Island, where they were probably nesting.

8—15. *Cerorhinca monocerata* (Pall.).

Rhinoceros Auklet.

Apparently a common winter visitant. I found it comparatively numerous at Catalina Island in the last week of December, '97, and secured ten specimens in one day's collecting. F. Stephens took a specimen in the same locality in the latter part of March, '93. Evan Davis has a specimen taken near Newport Bay in winter.

9—16. *Ptychorampus aleuticus* (Pall.).

Cassin's Auklet.

Abundant resident around the Islands. I found it numerous at Catalina Island in December, '97, and breeding in large numbers on Santa Barbara Island in May, '97. On May 16, badly incubated eggs and young of all sizes were secured, so that the breeding season probably begins in March.

10—25. *Brachyramphus hypoleucus* Xantus.

Xantus's Murrelet.

Seen frequently out in the Channel at all seasons. I took a specimen near Santa Barbara Island, May 13, '97.

11—29. *Cephus columba* Pall.

Pigeon Guillemot.

Common resident about the Islands. I saw several at Catalina Island in December, '97, and found it breeding numerously at Santa Barbara Island in May, '97. Fresh sets of two eggs each were taken on May 15.

12—37. *Stercorarius parasiticus* (Linn.).

Parasitic Jaeger.

A female of this species was taken at Santa Monica, Sept. 29, '95, by H. S. Swarth. Jaegers are not infrequently seen along the coast in winter, and probably include other species besides this.

13—44. *Larus glaucescens* Naum.

Glaucous-winged Gull.

W. B. Judson has an immature specimen taken near Redondo in winter. I identified this species at Catalina Island in December, '97. It undoubtedly occurs as a regular winter visitant.

14—49. *Larus occidentalis* Aud.

Western Gull.

Abundant throughout the year along the coast. Especially numerous in San Pedro Harbor, where they are protected by law as being useful scavengers. Breeds in large numbers on Santa Barbara Island. In May '97, full sets of three fresh eggs were found by the 18th. Nests also on an outlying rock near the Isthmus at Catalina.

15—51a. *Larus argentatus smithsonianus* Coues.

American Herring Gull.

This species is frequent in winter along the coast. I found it in small numbers in December, '97, at Catalina Island, and a specimen was obtained.

16—53. *Larus californicus* Lawr.

California Gull.

Common winter visitant along the coast. This species also frequents the fresh water marshes back from the coast, feeding on dead ducks at the sporting grounds, and I have even seen it along the river bottom near Los Angeles.

17—54. *Larus delawarensis* Ord.

Ring-billed Gull.

Tolerably common along the coast in midwinter. J. F. Illingworth has a specimen taken at Long Beach, Dec. 20, '92, and I have one taken at the same place, Dec. 4, '96.

18—57. *Larus heermanni* Cass.

Heermann's Gull.

Generally a common winter visitant along the coast. I have seen it in spring as late as May 11 ('97), and in the fall by Sept. 1 ('97). When the fishermen draw their seines along the beaches, clouds of gulls are usually attracted and of these, this species generally forms about one-fourth, while the Western Gull forms about one-half. The greater part of our winter visitants among the Laridæ are in immature plumage, and consequently in most cases difficult to distinguish at a distance. I suspect that a systematic slaughter of the swarms of gulls attracted by the fishermen would result in the addition of several more species to our list. But this would be a practice that is certainly reprehensible in the extreme, although I understand it has been resorted to, to a successful degree, by a "lover of birds" near San Francisco.

19—60. *Larus philadelphia* (Ord).

Bonaparte's Gull.

Occasional winter visitant along the coast. I have an adult male taken near Santa Monica, Dec. 8, '89, by E. C. Thurber. I saw a pair in San Pedro Harbor on May 11, '97, and a single individual at the same place, Jan. 30, '97.

20—65. *Sterna maxima* Bodd.

Royal Tern.

More or less common throughout the year along the coast. Very numerous in winter around Catalina Island. I do not know of its breeding north of Lower California.

21—69. *Sterna forsteri* Nutt.

Forster's Tern.

Common spring and fall migrant; seen generally about the sloughs and bays. I secured specimens at San Pedro, Sept. 1, '97. H. A. Gaylord saw several individuals at Alamitos Beach, Dec. 4, '96.

22—74. *Sterna antillarum* (Less.).

Least Tern.

Abundant in summer, coastwise. Arrives about the middle of April and leaves for the most part late in August, although V. W. Owen noted a few near Long Beach on Sept. 24 ('97). This tern nests abundantly in suitable places along the sea coast. A strip of sandy beach separating the surf from a tide marsh seems to be generally selected. Such nesting sites are on Terminal Island and Ballona Beach, where good-sized colonies are usually found breeding. Sets are most often of two, occasionally of three. Breeds mainly in June. Evan Davis has found fresh eggs as early as May 20, and as late as Aug. 12, at Newport Beach.

23—81. *Diomedea nigripes* Aud.

Black-footed Albatross.

Tolerably common out to sea, probably occurring throughout the year. Follows in the wake of steamships and other large vessels, and at such times known to the sailors as "Goonies."

24—82. *Diomedea albatrus* Pall.!

Short-tailed Albatross.

Dr. J. G. Cooper informs me that he has taken this species near Catalina island. I once found a partly decomposed specimen in the surf at Long Beach. Evan Davis has a fine specimen which was killed with an oar near Newport Beach.

25—86b. *Fulmarus glacialis glupischa* Stejn.

Pacific Fulmar.

Irregular visitant out in the Channel. Very numerous in the vicinity of Catalina Island in the fall of '97. F. S. Daggett found a specimen dead on the sand at Long Beach, Oct. 11, '95.

27—93. *Puffinus creatopus* Coues.

Pink-footed Shearwater.

Occasional out to sea. Seen and positively identified near Catalina Island on May 12, '97, by H. A. Gaylord.

27—93. *Puffinus opisthomelas* Coues.

Black-vented Shearwater.

More or less common at all times out in the Channel. During the spring and early summer of '97 they were very abundant off San Pedro. They are said to have formerly bred on Santa Barbara Island.

28—95. *Puffinus griseus* (Gmel.).

Dark-bodied Shearwater.

Occasionally common out in the Channel. During the spring of '97 they were not uncommon off San Pedro, associated with the Black-vented Shearwaters. Considerable numbers are sometimes found washed up on the beaches in the fall of the year. W. B. Judson noted many of these birds, dead or disabled, on the beach at Santa Monica toward the end of August, '97.

29—106. *Oceanodroma leucorhoa* (Vieill.).

Leach's Petrel.

I found the remains of one at Long Beach, Sept. 7, '95. Dr. J. G. Cooper informs me that he has observed a white-rumped petrel out in the Channel near Catalina which he considered of this species.

30—107. *Oceanodroma melania* (Bonap.).

Black Petrel.

During the spring of '97, this species was observed on several occasions out in the open Channel. It is probably a more or less common resident.

31—120c. *Phalacrocorax dilophus albociliatus* Ridgw.

Farallone Cormorant.

Common throughout the year, though less so in summer. Those which remain about San Pedro Harbor in summer are mostly immature. This is the only cormorant found further inland than the coast, it being frequent in winter on the larger ponds and marshes. Breeds abundantly on Santa Barbara Island in the latter part of May. It also breeds, according to A. M. Shields, on Gull Rock near the Isthmus at Catalina Island. Three or four eggs constitute a set.

32—122. *Phalacrocorax penicillatus* (Brandt).

Brandt's Cormorant.

The most abundant cormorant. Very numerous along the coast and breeding in large numbers on Santa Barbara Island. On this island, May 15, '97, I found small young as well as eggs in all stages of incubation. Sets were of two to four. Probably the small size of some of the sets was due to the thieving propensities of the gulls, which are always ready to carry off unprotected eggs. This cormorant is the usual one observed about San Pedro, and sometimes hundreds are seen roosting on the breakwater. Large beds of "shags," as the fishermen call either species of cormorant, are frequently met with just outside the harbor.

33—123b. *Phalacrocorax pelagicus resplendens* (Aud.).

Baird's Cormorant.

Tolerably common resident among the islands. Breeds numerously on Santa Barbara Island in May. Probably occurs in winter along the mainland coast, but I have not learned that it has as yet been positively identified there.

34—125. *Pelecanus erythrorhynchos* Gmel.

American White Pelican.

Occasionally during the fall and winter good-sized flocks appear on the fresh water marshes and lagoons near the coast. A. M. Shields says that during the migrations he has seen V-shaped flocks further inland flying at a considerable height.

35—127. *Pelecanus californicus* Ridgw.

California Brown Pelican.

Abundant in winter all along our coast, and a few remain through

the summer about San Pedro Harbor. It does not breed within our limits that I know of, though I am told that it does north of us on Ana Capa Island and south, on Los Coronados.

36—128. *Fregata aquila* Linn.

Man-o'-War Bird.

Of not infrequent occurrence along our coast in winter. W. B. Judson reports seeing it at Santa Monica, and H. A. Gaylord, at Long Beach. There is a specimen in a Los Angeles taxidermist's, which was taken near Santa Monica. A specimen was shot about August, '92, in North Pasadena (R. H. Lawrence in "Auk," Vol. X). H. S. Swarth reports seeing three of these birds circling overhead near Los Angeles, in December, '97.

37—129. *Merganser americanus* (Cass.).

American Merganser.

Probably a not uncommon winter visitant. F. Stephens took a male at Alamitos Bay, Dec. 15, '79.

38—130. *Merganser serrator* (Linn.).

Red-breasted Merganser.

Common winter visitant, occurring mostly along the coast. I saw it at Catalina Island in December, '97. H. S. Swarth took a specimen near Los Angeles, Dec. 27, '94.

39—131. *Lophodytes cucullatus* (Linn.).

Hooded Merganser.

A. M. Shields states that this Saw-bill is a common fall and winter visitant, arriving in November and leaving by February. Mostly found along the coast in the vicinity of the salt marshes. F. Stephens took an adult male at Alamitos Bay, Dec. 23, '79.

40—132. *Anas boschas* Linn.

Mallard.

Abundant resident in the neighborhood of fresh water marshes, and along irrigating ditches and streams. A. M. Shields states that it breeds from the first of April to the last of June.

41—135. *Anas strepera* Linn.

Gadwall.

Tolerably common resident in the vicinity of fresh water lagoons. A. M. Shields took a set of eleven eggs, considerably incubated, on April 16.

42—137. *Anas americana* Gmel.

Baldpate.

Abundant winter visitant. A. M. Shields states that after the first rains, as soon as the new growth of grass appears, this duck arrives in thousands. They generally spend the day, in common with many other species of ducks, several miles out at sea, resting on the water in beds of acres in extent. Here they are safe from the gunner during the day, and only after nightfall they go inland, dispersing over alfalfa and grain fields to feed. This duck remains late in the spring,

A. M. Shields states as late as May 15, and arrives early in the fall. Known generally among hunters as "widgeon."

43—139. *Anas carolinensis* Gmel.

Green-winged Teal.

Abundant in winter throughout the lowlands. This is the commonest duck in the game markets.

44—140. *Anas discors* Linn.

Blue-winged Teal.

Rare visitant. F. S. Daggett took an adult male near El Monte, March 12, '97. It was on a small pond and no others were seen. W. B. Judson shot a female near Los Angeles, Oct. 31, '96.

45—141. *Anas cyanoptera* Vieill.

Cinnamon Teal.

An abundant fresh water duck during spring, summer and fall, going south in midwinter. Breeds in considerable numbers throughout the lower country in the vicinity of ponds and lagoons. A set of twelve fresh eggs was taken by A. M. Shields near Compton, May 7, '95. Evan Davis took sets of seven and nine fresh eggs each at Newport Bay, April 20, '97. Breeds mostly in May.

46—142. *Spatula clypeata* (Linn.).

Shoveller.

Abundant winter visitant about any body of water. I have seen it on ponds near Pasadena as late in the spring as May 3 ('95). Generally called "spoonbill" by local hunters.

47—143. *Dafila acuta* (Linn.).

Pintail.

Abundant in winter, and a few remain through the summer about lagoons and marshes. A. M. Shields states that he has taken sets of eggs in May. Commonly called "sprig" by hunters.

48—144. *Aix sponsa* (Linn.).

Wood Duck.

Occasional midwinter visitant. A. M. Shields states that it breeds in this State further northward, along the San Joaquin river.

49—146. *Aythya americana* (Eyt.).

Redhead.

Tolerably common in summer. Breeds sparingly in fresh water marshes.

50—147. *Aythya vallisneria* (Wils.).

Canvas-back.

Tolerably common winter visitant. Our most highly prized game bird. A. M. Shields writes me that he believes it to occasionally breed within the county.

51—149. *Aythya affinis* (Eyt.).

Lesser Scaup Duck.

A. M. Shields says that this duck is found commonly in fall, win-

ter and spring on the lagoons and bays along the coast, and sometimes on the deeper bodies of fresh water a few miles inland.

52—150. *Aythya collaris* (Donov.).

Ring-necked Duck.

A. M. Shields states this duck to occur in company with the last, but only about one-third as numerous. H. S. Swarth has taken it near Los Angeles.

53—151. *Clangula clangula americana* (Bonap.).

American Golden-eye.

Only one record, that by A. M. Shields of a male shot at Ballona, Dec. 14, '94. H. S. Swarth reports seeing Golden-eyes frequently in the vicinity of Los Angeles, but he is in doubt as to the species.

54—153. *Charitonetta albeola* (Linn.).

Buffle-head.

Abundant winter visitant, especially on the lagoons along the coast.

55—163. *Oidemia americana* Swains.

American Scoter.

A. M. Shields states that he has found this duck in limited numbers during the winter months along the coast and on the tide marshes. Dr. J. G. Cooper took it at Catalina Island, many years ago.

56—165. *Oidemia deglandi* Bonap.

White-winged Scoter.

A. M. Shields writes that he has found this to be the commonest Scoter along the coast and on the tide marshes. F. Stephens found it common at Catalina Island in the latter part of March, '93.

57—166. *Oidemia perspicillata* (Linn.).

Surf Scoter.

Quite numerous at times during the mid-winter months along the coast. I have noted considerable numbers about San Pedro Harbor in December and January. In December, '97, it was very numerous at Catalina Island.

58—167. *Erismatura jamaicensis* (Gmel.).

Ruddy Duck.

Tolerably common resident. A. M. Shields states that it breeds from late in May until the last of June. Evan Davis took a set of twelve eggs, considerably incubated, near Orange on May 28th.

59—169. *Chen hyperborea* (Pall.).

Lesser Snow Goose.

A. M. Shields considers this a common winter visitant in the lowlands. Immense numbers feed during the winter and spring months on the Centinela grain fields. This goose, in common with the other species, does considerable damage to grain and alfalfa crops. They feed almost entirely at night; during the day they stay out at sea resting on the water in large beds a few miles off shore along with swarms of ducks.

60—169a. *Chen hyperborea nivalis* (Forst.).

Greater Snow Goose.

Evan Davis writes me that he secured specimens of this race along with the Lesser Snow Goose in winter near Santa Ana.

61—171a. *Anser albifrons gambeli* (Hartl.).

American White-fronted Goose.

Quite numerous during winter and spring on the fresh water marsh lands. A. M. Shields states that this is the goose usually displayed in the Los Angeles game markets, being most easily secured by the pot-hunters.

62—172. *Branta canadensis* (Linn.).

Canada Goose.

Tolerably common in midwinter in the vicinity of fresh water marsh lands. I saw good-sized flocks at Bixby, Dec. 26, '95, when several specimens were secured. A. M. Shields states that this goose was formerly much more abundant than it now is.

63—172a. *Branta canadensis hutchinsii* (Rich.).

Hutchins's Goose.

A. M. Shields regards this as nearly as numerous as the Lesser Snow Goose, and occurring in company with that species.

64—174. *Branta nigricans* (Lawr.).

Black Brant.

A. M. Shields is the sole authority for adding this species to our list. He states that the Black Brant is an occasional winter visitant along the coast. It appears in small flocks after severe storms further north.

65—178. *Dendrocygna fulva* (Gmel.).

Fulvous Tree-duck.

A. M. Shields furnishes all the information we have in regard to this interesting species. He has found it to be a regular visitant in the spring months from the last of January until the latter part of April or even later. In the spring of '96 a flock of about seventy-five remained in the vicinity of Nigger Slough until the middle of May. They then abruptly disappeared, probably returning southward where this species is known to breed, in Northern Mexico.

66—181. *Olor buccinator* (Rich.).

Trumpeter Swan.

A regular winter and spring visitant in small numbers on fresh water ponds and lakes. A. M. Shields has taken two fine specimens.

67—187. *Plegadis guarauna* (Linn.).

White-faced Glossy Ibis.

Of common occurrence in fall, winter and spring. A few remain through the summer in the Ballona marshes, and A. M. Shields believes that they breed there.

68—188. *Tantalus loculator* Linn.

Wood Ibis.

J. F. Illingworth observed a large flock of this species on the barley fields in the vicinity of Claremont during June, '97. On June 20 a specimen was secured and preserved, and a few days later a local hunter shot another.

69—190. *Botaurus lentiginosus* (Montag.).

American Bittern.

Common throughout the winter on any marsh lands. A. M. Shields has observed these birds in the Alamitos swamps in June, and believes that they breed, though in very small numbers.

70—191. *Ardetta exilis* (Gmel.).

Least Bittern.

Probably as numerous as its larger relative, the American Bittern, but on account of its small size, and habit of skulking to one side in the herbage rather than taking flight at the approach of a person, it is not commonly seen. Breeds in small numbers on swamp lands. A. M. Shields has taken several sets in the early part of May.

71—194. *Ardea herodias* Linn.

Great Blue Heron.

Common throughout the year, but most numerous in spring and fall. Usually seen standing singly at the margins of ponds or irrigating ditches. Occasionally companies of a dozen to twenty or more are to be seen on the salt marshes along the coast. Breeds sparingly in the county. L. Chambers reports finding a small colony nesting in a grove of sycamores north of Santa Monica. There were thirty-five nests there in '95, but in '97 their number had decreased to six. May 13, '95, three considerably incubated sets of four each were taken. A. M. Shields found a single nest of the Great Blue Heron near Cerritos on the San Gabriel River, May 5, '89. The set consisted of five fresh eggs. Evan Davis has located a small breeding colony near Orange. He secured a set of four fresh eggs on June 15.

72—196. *Ardea egretta* Gmel.

American Egret.

A not infrequent winter and spring visitant on the marshlands. Seldom more than one is seen at a time, though I have noted as many as eight in sight at once in the salt marshes near San Pedro. A. M. Shields states that formerly this beautiful bird visited us in great numbers, and that its present scarcity is probably due to the plume hunters.

73—197. *Ardea candidissima* Gmel.

Snowy Heron.

Formerly a common visitant like the American Egret, but now only seldom seen. W. H. Wakeley, the Pasadena taxidermist, has plumes and skins of both species taken in the county. He says that in the early 80's he received many specimens from hunters and sportsmen, but that of late they are very rarely brought in.

74—201c. *Ardea virescens anthonyi* Mearns.

Anthony's Green Heron.

Common spring and fall migrant, appearing singly along streams and ponds. It is not only found in the lowlands, but I have taken specimens in the mountain cañons back of Pasadena. Noted in the vicinity of Pasadena in the fall of '94, from Aug. 21 to Sept. 22.

75—202. *Nycticorax nycticorax naevius* (Bodd.).

Black-crowned Night Heron.

Abundant migrant and common throughout the winter. Found along the margins of any body of water or stream, frequently at a considerable elevation in the mountain cañons. Although this bird has not been found nesting within the limits of the County, it probably does not go far, as I have shot specimens toward the latter part of April which contained well-developed eggs.

76—206. *Grus mexicana* (Müll.).

Sandhill Crane.

Principally in evidence during the migrations in large V-shaped flocks high in the air, flying northward or southward according to the season. A. M. Shields states that a few stay through the winter and spring months up to May first, among the Centinela hills and grain-fields. F. S. Daggett has noted them in grain-fields in winter near Pasadena.

77—210. *Rallus obsoletus* Ridgw.

California Clapper Rail.

Tolerably common resident in the salt marshes along the coast. Among the lagoons between San Pedro and Long Beach, their loud cackling notes are frequently heard, especially at high tide, when they are driven to the higher ground. They probably nest in moderate abundance, though few eggs have so far been taken. W. B. Judson took a set of six slightly incubated eggs at Ballona, May 16, '94.

78—212. *Rallus virginianus* Linn.

Virginia Rail.

Of not infrequent occurrence in spring and fall. A few have been noted in summer, so they probably breed.

79—214. *Porzana carolina* (Linn.).

Sora.

Wherever there are swampy lands overgrown with marsh grass and tules, the Sora is a more or less common resident. During the migrations it is somewhat more numerous and appears in localities where it is not found at any other season. A. M. Shields writes me that he has taken many sets, all in May. The nest is built usually on the ground, and well concealed within a clump of grass or tules. Sets are of 7 to 14 eggs.

80—216. *Porzana jamaicensis* (Gmel.).

Black Rail.

This very small and secretive bird is but rarely noted. Evan

Davis took a specimen near Orange, Dec. 12, '96. G. F. Morcom saw one in the Ballona marsh, May 16, '95, and thinks it must have had a nest nearby.

81—219. *Gallinula galeata* (Licht.).

Florida Gallinule.

Common resident on large tule-bordered ponds. Wherever there are Coots this species is likely to be found, though its secretive habits render it far less conspicuous than the Coot. Nests in tule beds mostly in May. O. W. Howard took a set of nine slightly incubated eggs near Los Angeles, April 15 ('90); W. B. Judson took a set of nine considerably incubated eggs, June 19 ('95), near Redondo. These represent the probable extent of the breeding season.

82—221. *Fulica americana* Gmel.

American Coot.

Abundant resident on any permanent body of water, especially if there is a border of tules. During the winter it is more generally distributed, and even appears along irrigation ditches and on small reservoirs. These birds are popularly known as "mud-hens," and are killed by hundreds on the duck preserves, as they are considered a nuisance by the hunters. Breeds in the latter part of April, and in May.

83—222. *Crymophilus fulicarius* (Linn.).

Red Phalarope.

Specimens were taken by Walter Richardson in the fall on a reservoir near Pasadena. A. M. Shields states it to be occasionally common on the sloughs along the coast during the spring months.

84—223. *Phalaropus lobatus* (Linn.).

Northern Phalarope.

Abundant migrant. H. S. Swarth took it at Nigger Slough, June 19 ('97), and G. F. Morcom saw several in July at the same place. F. S. Daggett found them in large flocks on the fresh water ponds at Bixby, Aug. 10 to Aug. 27 ('96). Thus, they occur nearly through the summer, though none are known to breed.

85—225. *Recurvirostra americana* Gmel.

American Avocet.

Found in marshy districts in varying numbers throughout the year. Breeds commonly in the vicinity of the Alamitos swamps and Nigger Slough. A. M. Shields took a set of four fresh eggs at the latter place, May 27 ('92), and W. B. Judson took a similar set, June 26 ('95), in the same locality. Evan Davis reports taking eggs near Santa Ana from May 3 to July 6. Full sets are almost invariably of four.

86—226. *Himantopus mexicanus* (Müll.).

Black-necked Stilt.

Common in spring and fall on the margins of ponds and marshes. Breeds locally in considerable numbers. Evan Davis has taken eggs at Alkali Lakes near Santa Ana from the first of May until August. Sets were of three and four eggs each.

87—230. *Gallinago delicata* (Ord).

Wilson's Snipe.

Abundant game bird in fall, winter and spring, on grassy swamps and wet pastures.

88—232. *Macrorhamphus scolopaceus* (Say).

Long-billed Dowitcher.

Common winter visitant. Perhaps most often taken in early spring.

89—242. *Tringa minutilla* Vieill.

Least Sandpiper.

A common winter visitant. Generally seen on margins of ponds or sloughs in small scattering companies.

90—243a. *Tringa alpina pacifica* (Coues).

Red-backed Sandpiper.

Common migrant and scarcely less numerous through the winter. Usually observed in good-sized flocks on the sea beach at the mouth of a slough or "river." W. H. Wakeley has specimens in the bright summer plumage, taken at a pond near Pasadena early in May.

91—247. *Ereunetes occidentalis* Lawr.

Western Sandpiper.

Appears along the coast in immense flocks during September and April. G. F. Morcom has noted this species in July.

92—248. *Calidris arenaria* (Linn.).

Sanderling.

Common throughout the winter in flocks on the sandy sea beaches. It remains common until the middle of May, and H. S. Swarth has taken specimens at Redondo as late as June 4 ('97).

93—249. *Limosa fedoa* (Linn.).

Marbled Godwit.

Noted occasionally along the coast during the migrations.

94—254. *Totanus melanoleucus* (Gmel.).

Greater Yellow-legs.

Tolerably common winter visitant. Generally flushed from the margins of fresh water ponds and sloughs. G. F. Morcom saw this bird at Nigger Slough, June 19 ('97), and H. S. Swarth has observed it in July. These were probably stragglers, as there is no evidence of their breeding.

95—256a. *Totanus solitarius cinnamomeus* Brewst.

Western Solitary Sandpiper.

Common migrant on the interior lowlands. W. B. Judson reports it as numerous along the Los Angeles River in the fall. He took the earliest specimen, Aug. 27 ('95). H. S. Swarth has taken it in the spring near Los Angeles from April 21 to May 2 ('97).

96—258a. *Symphemia semipalmata inornata* Brewst.

Western Willet.

Common migrant and occasional through the winter on the tide marshes along the coast. I took specimens near San Pedro, Sept. 3, '97.

97—259. *Heteractitis incanus* (Gmel.).

Wandering Tattler.

Two specimens were shot by F. Stephens in the latter part of March, '93 at Catalina Island. Probably occurs in winter along the rocky shores west of San Pedro.

98—263. *Actitis macularia* (Linn.).

Spotted Sandpiper.

Common migrant over most parts of the county. I have taken it in the vicinity of Pasadena from April 21 ('97), until May 12 ('96), during the spring migrations. F. S. Daggett found it common along the San Gabriel Cañon several miles back in the mountains, May 8, ('97). In the fall it occurs most commonly along the coast; observed at San Pedro, Aug. 31 ('97). It was tolerably common at Catalina Island in December, '97.

99—264. *Numenius longirostris* Wils.

Long-billed Curlew.

Common winter visitant on the tide marshes along the coast. I have seen solitary pairs near Long Beach in July, so possibly a few breed.

100—265. *Numenius hudsonicus* Lath.

Hudsonian Curlew.

Common spring and fall migrant in marshy places throughout the lowlands. A. M. Shields states this species to be numerous at Alamitos and Ballona during the spring migrations from March 15 to May 1.

101—270. *Squatarola squatarola* (Linn.).

Black-bellied Plover.

Common spring and fall migrant along the coast. Usually noted on the beaches and mud-flats at the mouths of the sloughs.

102—273. *Ægialitis vocifera* (Linn.).

Killdeer.

Abundant resident on wet meadows and about any fresh water streams or ponds. Sometimes they gather in large flocks in newly-mown alfalfa fields where they are very beneficial in destroying army-worms and other insects. A. M. Shields says that the breeding season extends ordinarily from the middle of March to the last of May. Evan Davis took a set of four near Santa Ana on June 15th.

103—274. *Ægialitis semipalmata* Bonap.

Semipalmated Plover.

Tolerably common migrant. I have noted it only in the fall along the coast. Specimens were secured Sept. 7 ('95), and Oct. 17 ('94). Occurs in small flocks on mud flats and beaches.

104—278. *Ægialitis nivosa* Cass.

Snowy Plover.

Common resident along the coast. Usually seen in winter in small companies, but in the breeding season they scatter over the sandy beaches, and are found nesting just above the reach of the surf often in

the same vicinity with the Least Terns. Evan Davis took full sets of three eggs each at Newport Beach on May 1 ('97), and on the same day took two young. O. W. Howard took a set of three slightly incubated eggs, July 7 ('95). These indicate the extent of the breeding season, the average being about the first of June. Full sets are almost always of three.

105—281. *Ægialitis montana* (Townsend).

Mountain Plover.

Common winter visitant on the interior fields and pasture lands. At times large numbers are offered in the Los Angeles game markets.

106—284. *Arenaria melanocephala* (Vig.).

Black Turnstone.

Two immature specimens were taken by F. Stephens in the latter part of March, '93, on Catalina Island. I noted it in the same locality toward the last of December, '97. J. W. Daniel, Jr., writes me that he took a specimen at Redondo Beach, June 14, '96.

107—292a. *Oreortyx pictus plumiferus* (Gould).

Plumed Partridge.

Common resident in the mountainous districts from the highest summits to the foothills. Most numerous in the heavy growth of scrub oak and manzanita which covers the southern slopes of the higher mountains. The "Mountain Quail," as it is locally termed, is not easily flushed and as it generally remains on the steep hill-sides in the almost impenetrable brush, it does not afford much sport to hunters. In time of heavy snow in the mountains, these birds appear in considerable numbers in the lower foothills, and individuals have even been seen in Pasadena, three miles from the base of the mountains. The breeding season begins in April. H. Leland found a nest in the Linda Vista hills west of Pasadena, May 7, '97. It contained ten eggs of the Plumed Partridge and four eggs of the Valley Partridge; all were fresh. The Plumed Partridge was flushed from the nest. I have taken young apparently but a day or two old, on Pine Flats, as late as July 15.

108—294a. *Callipepla californica vallicola* Ridgw.

Valley Partridge.

Abundant resident throughout the county except the higher mountains and marsh lands. The range of this species and the Plumed Partridge overlaps in the foothill regions, but the two species never flock together. The Valley "Quail" is the game bird of Southern California. It is particularly abundant in the vicinity of vineyards, and is said to do considerable damage to the grape crop. The breeding season begins in April and extends nearly through the summer. H. Robertson took a set of nine fresh eggs near Los Angeles, Aug. 9, '97. Full sets vary from 9 to 23 eggs, usually 15 to 17.

109—295. *Callipepla gambelii* (Gambel).

Gambel's Partridge.

H. S. Swarth took an adult male near Los Angeles, Sept. 16, '96. This species occurs regularly not more than fifty miles northward and but a little further to the eastward, so the probabilities are that this bird

was a straggler. The plumage showed no marks of its having been in confinement.

110—312. *Columba fasciata* Say.

Band-tailed Pigeon.

Irregular resident. In some winters it appears in flocks of hundreds in the oak regions on the mountains and along the foothills. Its presence or absence seems to be governed by the crop of acorns, here and elsewhere. In the spring of '95 a flock remained at Oak Knoll, south of Pasadena, until the middle of June. Breeds sparingly on the higher mountains. C. E. Groesbeck found a nest on Mt. Wilson, July 5, '94. It was on a horizontal oak branch extending out over a deep gorge, and contained a single squab about a week old. W. B. Judson found a nest on Mt. Wilson, May 23, '97. It contained but one egg, considerably incubated.

111—316. *Zenaidura macroura* (Linn.).

Mourning Dove.

Abundant resident throughout the lowlands, and less common in summer up to the summits of the mountains. Generally seen in pairs or small flocks in weed patches and stubble fields or at watering places. In the vicinity of Pasadena the Doves nearly all disappear in winter, but are then found in large flocks in the lower country. Breeding season quite extensive: C. E. Groesbeck took a set of two fresh eggs, March 14 ('96); and H. S. Swarth found a set of eggs just hatching, Sept. 15 ('97).

112—324. *Pseudogryphus californianus* (Shaw).

California Vulture.

Tolerably common resident in the mountainous parts of the county. Hardly a day passes in the vicinity of Mt. Wilson without one or more being seen. They undoubtedly breed in one of the precipitous cañons near by. The "Condors" are also frequently seen in the Santa Monica and Simi Mountains. In the latter locality I once saw seven at one time circling overhead. The Condor is not by any means becoming extinct in this part of the State, and if they continue to be as shy as now, there is not much likelihood of their extermination very soon.

113—325. *Cathartes aura* (Linn.).

Turkey Vulture.

Abundant resident. Less common in the middle of winter. Breeds in the foothills from the latter part of March to the last of April. Evan Davis writes that in the vicinity of Orange he does not find eggs until May. He took sets on the 8th and 19th of that month. Two eggs constitute a full set.

114—328. *Elanus leucurus* (Vieill.).

White-tailed Kite.

Tolerably common resident in the lowlands. Nests in the willow region in March and April. A. M. Shields has taken sets in the neighborhood of Alamitos as follows: Set 5 fresh, April 4, '96; set 5 fresh, April 11, '96; nest containing two young one-half grown and two added eggs, April 11, '96; incomplete set of two fresh eggs, probably a second set laid by the pair of birds first robbed, May 3, '96.

115—331. *Circus hudsonius* (Linn.).

Marsh Hawk.

Very common in the lowlands, especially in the vicinity of swamps and wet pastures. Resident throughout the year, but somewhat more numerous in winter. Breeds commonly in May, laying four or five eggs.

116—332. *Accipiter velox* (Wils.).

Sharp-shinned Hawk.

Common in fall and winter throughout the county. Food, almost entirely composed of small birds. This hawk is to a certain extent nocturnal in habits. I have shot specimens long after dark as they flew overhead outlined against the clear sky. They sometimes create quite a disturbance after dusk, stealthily flitting through trees where linnets are roosting, and without doubt preying on them. I have seen Sharp-shinned Hawks in the mountains in every month of spring and summer, so a few probably breed.

117—333. *Accipiter cooperii* (Bonap.).

Cooper's Hawk.

Tolerably common resident along the foothills. Breeds late in April. Ed. Simmons took sets of four eggs each, slightly incubated, on April 28, '95, and April 26, '96. Both of these were in cañons north of Pasadena.

118—337b. *Buteo borealis calurus* (Cass.).

Western Red-tail.

This hawk is generally of common occurrence throughout the county. I saw adults and young in July, '97, on Mt. Waterman (8500 feet). The breeding season is at its height the last week in March. Extreme dates: Set of fresh eggs taken by Evan Davis near Orange, Feb. 26 ('97); set 2, incubation advanced, taken in San Fernando Valley, April 30 ('92), by H. A. Gaylord. Full sets are generally of two or three, but M. L. Wicks, Jr., took a set of four eggs. This hawk, in common with other species, is popularly known as Henhawk or Chickenhawk, and is relentlessly killed whenever chance is offered. I think the great increase in the numbers of ground squirrels in some parts of the county is due in part to the destruction of hawks and owls, which were formerly far more numerous than now.

119—339b. *Buteo lineatus elegans* (Cass.).

Red-bellied Hawk.

Tolerably common in the lower parts of the county, especially in the oak and willow regions. Extent of breeding season, indicated by the following instances: Set 4, slightly incubated, taken at El Monte, March 15 ('97), by C. E. Groesbeck; set 2, incubation begun, taken at Compton, May 22 ('92), also by C. E. Groesbeck. Sets are of two to five eggs.

120—342. *Buteo swainsoni* Bonap.

Swainson's Hawk.

As far as I can learn this is only a spring and summer visitant. On windy days, in late March and early April, large numbers are some-

times seen flying northwestward in migration, and similarly in the latter part of September long, straggling flocks are observed at a moderate height, flying in a southeasterly direction. This species apparently breeds in considerable numbers, but is confined to the valleys and lowlands. The usual time of egg-laying is in the latter part of April and early May. L. Chambers reports taking fresh eggs as late as June 1, near Santa Monica. Sets are of two or three.

121—348. *Archibuteo ferrugineus* (Licht.).

Ferruginous Rough-leg.

Tolerably common for a hawk, appearing mostly in the fall. A few undoubtedly breed, though I have failed to learn of any authentic nesting data.

122—349. *Aquila chrysaetos* (Linn.).

Golden Eagle.

Tolerably common in the mountainous parts of the county. Nests are built in tall fir trees and are usually inaccessible; at least no sets have been taken in this county, to my knowledge. Full-fledged young appear in July.

123—352. *Haliaeetus leucocephalus* (Linn.).

Bald Eagle.

Tolerably common in certain localities along the coast, and of casual occurrence inland as far as Pasadena. L. Chambers took a set of two considerably incubated eggs near Santa Monica, March 13, '97. The nest was about forty feet above the ground, in a large sycamore near the beach. Evan Davis secured a set of two near Santa Ana, March 5, '95.

124—355. *Falco mexicanus* Schleg.

Prairie Falcon.

Tolerably common in fall and winter in the foothill and mesa regions.

125—356. *Falco peregrinus anatum* (Bonap.).

Duck Hawk.

Of occasional occurrence along the coast and over the lowlands further inland. A pair is said to have formerly nested in one of the caves in Eagle Rock, near Pasadena.

126—357. *Falco columbarius* Linn.

Pigeon Hawk.

Tolerably common during fall and winter in the foothill and mesa regions.

127—360a. *Falco sparverius deserticolus* Mearns.

Desert Sparrow Hawk.

Abundant throughout the county, from the coast to the highest mountains. In the lowlands the Sparrow Hawk is most frequently noticed perched on telegraph poles along the railroads, or hovering over the fields on the lookout for its prey. It feeds principally on insects, grasshoppers in particular, and is thus beneficial to the farmer, and in this vicinity is seldom persecuted as are the larger hawks.

Breeds commonly wherever proper nesting sites are to be found. Eggs usually laid in April, though individual pairs often nest earlier, or if the first set is destroyed, much later; set 5, incubation slight, taken by me near Pasadena, March 18 ('93); set 5, incubation medium, taken by E. Parker near Claremont, June 27 ('97). Sets are of three to six eggs, generally four or five.

128—364. *Pandion haliaëtus carolinensis* (Gmel.).

American Osprey.

Of occasional occurrence along the coast, mostly in fall and spring. None nest within the county at present, except on the Islands, where they breed abundantly. M. L. Wicks, Jr. tells me that a pair formerly had a nest on a rock in the surf near Santa Monica.

129—365. *Strix pratincola* Bonap.

American Barn Owl.

This is probably our best known owl, making its home in barn lofts, church towers and garrets. It is popularly known as Golden Owl and Monkey-faced Owl. Breeds commonly in March and April, in the oak regions, as well as in buildings and holes in banks. C. E. Groesbeck found a nest containing half-grown young, on Feb. 11 ('97), and on the same date took a set of six slightly incubated eggs; H. Leland took a set of five fresh eggs on June 5 (97). Both were near Pasadena.

130—366. *Asio wilsonianus* (Less.).

American Long-eared Owl.

Common resident in the willow regions of the lowlands. Eggs are most generally laid in April. Extremes: C. E. Groesbeck took a set of four eggs almost ready to hatch, near El Monte, March 15 ('97). R. Arnold took a set of four fresh eggs in San Fernando Valley, May 1 ('92).

131—367. *Asio accipitrinus* (Pall.).

Short-eared Owl.

Apparently a tolerably common winter visitant. Observed only in wet meadows in the lowlands. On November 7 ('96), I flushed a flock of five from an alfalfa field near El Monte, and secured two. Feb. 8 ('93) is the latest authentic record in the spring. This owl has recently been reported as nesting in this county, but I consider the identity questionable.

132—369. *Syrnium occidentale* Xantus.

Spotted Owl.

Apparently a resident, though in small numbers, in the higher mountains. Several specimens have been taken in the cañons north of Pasadena in winter, and I took an adult male in moulting plumage in the same vicinity, Aug. 10 ('94). F. J. Illingworth secured full-fledged young in a cañon near Claremont, July 4 ('94), and has seen adults in the same place on several occasions since.

133—373c. *Megascops asio bendirei* (Brewst.).

California Screech Owl.

Common resident in the oak regions from the lowlands to 5000

feet elevation in the mountains. Breeds principally in April. Incomplete set of 2 fresh eggs, taken March 14 ('96) by C. E. Groesbeck; set 3, incubation advanced, taken by myself June 5 ('95), both near Pasadena. Sets are ordinarily of 3 to 5 eggs, but Evan Davis reports as many as 8 in a set.

134—375c. *Bubo virginianus pacificus* Cass.

Pacific Horned Owl.

Tolerably common resident in the mesa and foot-hill regions, but becoming scarcer every year. Breeds in February and March. A. M. Shields took a set of three fresh eggs in San Fernando valley, Feb. 15, ('95). A. I. McCormick found a nest April 4 ('97), containing two young just hatched and one addled egg. Full sets are of two or three, usually the latter number.

135—378. *Speotyto cunicularia hypogæa* (Bonap.).

Burrowing Owl.

Abundant resident on the lowlands and mesas. On the fields around Bixby and South Clearwater, this bird is particularly numerous. Nesting begins early in April. Latest set, 4 fresh, taken by me near Pasadena, June 3 ('93). Sets 6 to 11, usually 9.

136—379. *Glaucidium gnoma* Wagl.

Pygmy Owl.

Quite a number of specimens have been taken in midwinter in the mountains north of Pasadena. They undoubtedly breed in the higher ranges, and are driven to lower altitudes by the winter storms.

137—385. *Geococcyx californianus* (Less.).

Road-runner.

Common resident of the brush and cactus-covered washes and mesas, though scarcer now than formerly. Nests principally toward the latter part of March, though I have taken fresh eggs in the vicinity of Pasadena from March 12 ('92) until June 12 ('93). There is apparently no such thing as a full set of Road-runners' eggs, as they are laid at intervals of several days, and incubation begins with the first egg. Thus I have found fresh and variously incubated eggs in the same nest with good-sized young. The largest number of eggs I have ever found in a nest at one time was seven.

138—387a. *Coccyzus americanus occidentalis* Ridgw.

California Cuckoo.

Tolerably common summer resident in the willow regions of the lowlands. This bird, shy and of secretive habits, I have found easily overlooked. If carefully watched for, it will probably be found common where it is now seldom or not at all noticed. Breeds late. M. L. Wicks, jr., took a set of four slightly incubated eggs, a few miles east of Santa Monica, June 7, '89.

139—390. *Ceryle alcyon* (Linn.).

Belted Kingfisher.

Occurs in considerable numbers during the migrations in suitable localities from the coast to the foothills, and a few are found at all sea-

sons of the year. In the harbor of San Pedro they are in spring and fall very conspicuous, flying over the water or perching on the rigging of vessels.

140—393*d.* *Dryobates villosus hyloscopus* (Cab.).

Cabanis's Woodpecker.

Locally common in wooded regions from the lowlands to the higher mountains. In severe winters they are sometimes quite numerous in the oak regions. Although this woodpecker breeds in moderate numbers, but one set has been taken. G. F. Morcom took a set of three slightly incubated eggs, May 2, '97, at Cerritos, near Compton. On the same day another nest was found, containing one fresh egg. I have found nests in the latter part of June containing large young.

141—394*a.* *Dryobates pubescens gairdnerii* (Aud.).

Gairdner's Woodpecker.

Not so common as Cabanis's Woodpecker, but found in about the same localities. I have never seen it above 4000 feet in the mountains. Sets have been taken in the willow regions in May.

142—397. *Dryobates nuttallii* (Gamb.).

Nuttall's Woodpecker.

Common in any wooded locality from the lowlands up to 5000 feet in the mountains. Nests in considerable numbers in the willow regions. I took a set of three slightly incubated eggs, May 19 ('94); and R. Arnold reports a set of three, incubation begun, taken June 6 ('96). These indicate the approximate extent of the breeding season.

143—399. *Xenopicus albolarvatus* (Cass.).

White-headed Woodpecker.

A common resident of the pine regions on the higher ranges from 5000 feet to their summits. I have taken full-fledged young on Pine Flats as early as July 1.

144—402*a.* *Sphyrapicus varius nuchalis* Baird.

Red-naped Sapsucker.

Of occasional occurrence along the foothills in midwinter. Specimens taken in the vicinity of Pasadena by H. A. Gaylord and myself, Dec. 26 ('95), and Feb. 13 ('97).

145—403. *Sphyrapicus ruber* (Gmel.).

Red-breasted Sapsucker.

More or less common winter visitant in wooded districts. Oftenest noticed, even along the noisy city streets, in pepper trees, the sap of which this bird seems to particularly like. I have noted this woodpecker in Pasadena from Oct. 9 ('95) to March 21 ('97).

146—404. *Sphyrapicus thyroideus* (Cass.).

Williamson's Sapsucker.

Occurs irregularly in winter in the coniferous timber on the mountains. So far, the records are confined to the months of October, November and December. Oct. 31 and Nov. 1, '97, as many as a dozen were noted on Mt. Wilson.

147—407a. *Melanerpes formicivorus bairdi* Ridgw.

Californian Woodpecker.

Abundant resident in the oak regions, and in much less numbers in the pines and firs up to 6000 feet in the mountains. Breeds in April and May: Earliest set, five fresh eggs, taken April 5 ('92), by R. Arnold in San Fernando Valley. Last set, four fresh, June 3 ('96), near Pasadena by H. Leland. Sets are of four to eight eggs.

148—408. *Melanerpes torquatus* (Wils.).

Lewis's Woodpecker.

Common winter visitant in the oak regions and occasionally on the mountains among the firs. Noted in the vicinity of Pasadena by F. S. Daggett as early as Sept. 30 ('96), and in the spring I have seen it as late as May 4 ('95).

149—412. *Colaptes auratus* (Linn.).

Flicker.

An adult male of this eastern species was taken by E. C. Thurber at Allhambra, Feb 7, '90,

150—413. *Colaptes cafer* (Gmel.).

Red-shafted Flicker.

Common throughout the year in wooded localities, but most generally distributed and much more abundant in winter. Breeds from the willow regions in the lowlands up to 6000 feet in the mountains. Eggs usually laid in May. Earliest set, five fresh, taken April 16 ('96), in San Fernando Valley by C. E. Groesbeck; last set, four slightly incubated, taken near Pasadena, June 15 ('94), by H. A. Gaylord. Several "hybrid" Flickers have been taken in the county.

151—418b. *Phalænoptilus nuttallii californicus* Ridgw.

Dusky Poor-will.

Common in spring, summer and fall in the foothill regions, and occasional up to 6000 feet on brushy slopes in the mountains. During the spring and fall migrations the note of this bird is frequently heard at night far out on the mesas and uplands. E. Simmons, who resides at the base of the mountains north of Pasadena, states that he hears this bird during every month of the year, though from Dec. 15 to Jan. 20 last year he heard none, and H. S. Swarth reports seeing a single individual during the last of December and early part of January, thus indicating that the Poor-will may remain throughout the year. The extent of the breeding season is shown by the following sets of two eggs each, taken by E. Simmons near North Pasadena: Set, fresh, April 21 ('95); set, incubation advanced, June 14 ('93).

152—420. *Chordeiles virginianus* (Gmel.).

Nighthawk.

Rare migrant. I took a male and saw another, probably the female, in the evening of Oct. 27, '96. The Nighthawk occurring in summer in the Sierras and northward through Oregon and Washington, is apparently identical with this common eastern species.

153—421. *Chordeiles acutipennis texensis* (Lawr.).

Texas Nighthawk.

Abundant summer resident, principally of the mesas and dry washes. First spring arrival noted by H. A. Gaylord, March 21 ('96). Last individual in the fall, seen by me, Sept. 4 ('94). Breeds mainly in May. First set, taken by me near Pasadena, two fresh, April 21 ('97); latest set, two slightly incubated, taken July 11 ('95), by H. S. Swarth in San Fernando Valley.

154—422. *Cypseloides niger borealis* (Kennerly).

Black Swift.

Rare migrant. I have seen it on two occasions toward the last of August flying southeast over Pasadena. W. H. Wakeley has a specimen mounted which was shot near Pasadena late in summer several years ago.

155—424. *Chætura vauxii* (Townsend).

Vaux's Swift.

Common migrant. Generally seen flying in scattered flocks over the mesas or along the bases of the mountains. Sometimes large companies tarry about reservoirs or ponds. According to my field notes the migrations occur as follows: In spring, April 22 ('96) to May 2 ('96); and in fall, Sept. 3 ('95) to Oct. 13 ('94).

156—425. *Aëronautes melanoleucus* (Baird).

White-throated Swift.

Common in mountain regions in summer, and occasionally seen during the winter over the lowlands and mesas. Nests in crevices of the rock in the most inaccessible cliffs. E. Simmons took a set of two eggs, about one-third incubated, in a mountain cañon north of Pasadena, May 30, '97. H. G. Rising took a set of two fresh eggs in the Santa Monica Mountains, June 16, '97.

157—429. *Trochilus alexandri* Bourc. & Muls.

Black-chinned Hummingbird.

Summer resident from the lowlands to the summit of the mountains, but most abundant in the foothill regions, where it breeds in the cañons in some years by the thousands. Nests are generally situated near a stream, and are found mostly after the middle of May. I have taken fresh eggs by April 29 ('95), which I consider very early for this species, and as late as July 8 ('95); I found a nest containing two half-grown young near Pasadena, Aug. 24 ('95), which of course is very late. The abundance of the Hummingbirds is very variable, depending on the growth of flowering plants. Usually after a wet winter they are far more numerous than after a dry one. The Black-chinned Hummingbird arrives in the vicinity of Pasadena from the middle of April to the first week in May, and the majority disappear by the last of July. Extreme records from my note-book, April 3 ('95) and Sept 3 ('95). By the first of July, when the vegetation of the foothills becomes dry, and flowers cease to bloom, the Hummingbirds are found in countless thousands at higher elevations (6000 to 8500 feet), where summer is just dawning.

158—430. *Calypte costæ* (Bourc.).

Costa's Hummingbird.

Common summer resident in the mesa and foothill regions, though ranging from the lowlands to the higher mountains during migration. Arrives about the middle of April. My earliest and latest records are, respectively, March 21 ('96) and Sept. 26 ('96). Nests are, as a rule, found out in the barren washes or on the dry hill-sides, far from water. The breeding season extends through May and the early part of June. My earliest set was of two fresh eggs, taken near Pasadena, April 21 ('97), and the latest set, of two slightly incubated eggs, taken June 28 ('94), in the same locality.

159—431. *Calypte anna* (Less.).

Anna's Hummingbird.

Common throughout the year from the lowlands to the foothill regions, and in July up to 8500 feet in the mountains. Like all the hummingbirds this species follows the flowers, and its local presence or absence is governed by their abundance or scarcity. Thus, in August and September hundreds of Anna's Hummers are to be found over the stubble fields and sunflower patches, attracted by the flowers of the "tar-weed." During the winter months they are found in profusion about the blossoming eucalyptus trees. In January and February, when the weather is mild, they appear high on the mountain sides among the flowering manzanitas; and in March and April, in the blossoming orange groves in the valley, and about the currant bushes on the hill-sides. The Anna's Hummingbird is our only species breeding before the last of April. It nests numerously through February and March, and sets may be looked for from January to May. A. I. McCormick took a set of two eggs, considerably incubated, on Dec. 21 ('95); and the same observer noted a nest and eggs in the middle of July ('97); both near Los Angeles.

160—433. *Selasphorus rufus* (Gmel.).

Rufous Hummingbird.

Very abundant, especially in the blossoming orange groves, during the spring migrations in April. Apparently entirely absent in mid-winter. I have noted it at greater or less intervals from Feb. 20 ('96) till Oct. 5 ('97), during which time this hummer is evidently found somewhere in the county in varying numbers. Although the probabilities are that a few breed in the higher mountains where I have taken adults and juveniles in July, I know of no authentic nesting records, notwithstanding that many eggs purporting to be of this species have been sent from this county. I have never noted this hummer, from April 29 until August 16, below 5000 feet, and it is doubtful if any breed south of the San Gabriel ranges.

161—434. *Selasphorus alleni* Heush.

Allen's Hummingbird.

A tolerably common spring migrant, occurring along with the Rufous Hummer in the latter part of March and April.

162—436. *Stellula calliope* Gould.

Calliope Hummingbird.

Common summer resident above 5000 feet in the mountains. I

took juveniles near Mt. Waterman on July 14, '97. A few have been taken in April and early May, evidently in migration, on the lowlands and mesas, usually near the base of the mountains.

163—444. *Tyrannus tyrannus* (Linn.).

Kingbird.

Only one record: An immature male taken by W. B. Judson at Santa Monica, Aug. 31, '95.

164—447. *Tyrannus verticalis* Say.

Arkansas Kingbird.

Abundant in summer throughout the lowlands and mesas. My earliest and latest records are, respectively, March 17 ('96) and Sept. 14 ('97). Breeds mainly toward the last of May, in the vicinity of ranches and along country roads. Earliest set, of three fresh eggs, taken May 7 ('93), by H. A. Gaylord in San Fernando Valley. Latest set, of three eggs, incubation about one-half, taken by me June 28 ('92) near Pasadena. Full sets in this vicinity consist of three to seven eggs, usually four or five.

165—448. *Tyrannus vociferans* Swains.

Cassin's Kingbird.

Common in winter in the lower parts of the county. I have noted it in the vicinity of Pasadena from Sept. 16 ('95) until May 1 ('97). A few remain through the summer and probably breed in the western part of the county. H. Robertson saw a pair west of Los Angeles, June 9 ('97), which he has no doubt had a nest near by. I found several nests containing young in July ('93) in Simi Valley, just over the line in Ventura County, and I saw adults on this side at Chatsworth Park.

166—454. *Myiarchus cinerascens* (Lawr.).

Ash-throated Flycatcher.

Common summer resident from the oak regions of the lowlands up to 6000 feet in the mountains. Earliest arrival in the spring noted by H. A. Gaylord, April 4 ('96); and I have seen a very few as late as September, the last, Sept. 14 ('95). Breeds most commonly in the last week of May. Extremes: Set five fresh, taken by W. B. Judson, May 16 ('97) in the West Fork, north of Mt. Wilson; and a set of four fresh eggs, taken in the same locality by H. Leland, June 8 ('96).

167—457. *Sayornis saya* (Bonap.).

Say's Phoebe.

Common winter visitant over the mesas and lowlands. I have noted it in the vicinity of Pasadena from Sept. 10 ('94), till March 14 ('95).

168—458. *Sayornis nigricans* (Swains.).

Black Phoebe.

Common resident of the lowlands and occasional along streams up to 6000 feet in the mountains. Usually to be found near water, and especially about barns and stockyards. Eggs usually laid toward the last of April. Extremes: Set four, slightly incubated, taken by C. E.

Groesbeck near Pasadena, March 28 ('97); and three fresh, taken by the same collector on the West Fork of the San Gabriel Cañon, June 5 ('96). Sets are of three to five eggs, ordinarily four.

169—459. *Contopus borealis* (Swains.).

Olive-sided Flycatcher.

Common in summer above 3000 feet in the mountains, and during the migrations frequently seen on the lowlands and mesas. This bird is a late arrival in the spring, my earliest record being April 24 ('96). In the fall the latest record was a specimen taken Sept. 26 ('96); both near Pasadena. As this species nests in the tallest coniferous trees the eggs are hard to secure. W. B. Judson took a set of three considerably incubated eggs on Mt. Wilson, June 11, '97. Nearly fledged young ordinarily appear about the 15th of July.

170—462. *Contopus richardsonii* (Swains.).

Western Wood Pewee.

Common summer resident of the cañons and coniferous forests up to 7000 feet. During the migrations, more or less common along streams and in wooded localities on the lowlands. My notes give the earliest arrival in the vicinity of Pasadena, April 18 ('95), and the last in the fall, Sept. 30 ('94). Breeds mainly in June. Extremes: Set 3, incubation slight, taken by A. I. McCormick near Los Angeles, May 25 ('95); and 3, slightly incubated, taken near Pasadena by H. A. Gaylord, July 11 ('94). Sets are of 2 to 4 eggs, mostly 3.

171—464. *Empidonax difficilis* Baird.

Western Flycatcher.

Common summer resident of the mountain cañons. During the migrations, noted all over the lowlands. My notes, taken in the vicinity of Pasadena, show the earliest arrival March 30 ('96), and the last seen in the fall, Oct. 10 ('96). Eggs are laid mostly during the latter part of May. My earliest set was of 4 considerably incubated eggs taken May 11 ('95); and the latest, of 4 slightly incubated eggs taken June 29 ('95). Full sets are almost always of 4.

172—466. *Empidonax traillii* (Aud.).

Traill's Flycatcher.

Common in summer in the willow regions of the lowlands. Arrives late. My earliest record is May 4 ('95); latest in the fall, Sept. 26 ('96). Nests mostly in June. Extremes: Set 3, slightly incubated, taken by A. I. McCormick near Los Angeles, May 25 ('95), and a similar set taken by H. A. Gaylord near Pasadena, July 11 ('94). Full sets are ordinarily of three eggs. H. Robertson reports several sets of four each.

173—468. *Empidonax hammondi* (Xantus).

Hammond's Flycatcher.

Common migrant. Most numerous in the spring, when it is observed mostly on the mesas along the base of the mountains. From H. A. Gaylord's notes, the earliest spring arrival was April 9 ('96), and the last to depart, May 9 ('96). In the fall I have seen this Flycatcher by the first week in September, and I took a specimen as late as Oct. 30 ('97).

174—469.1. *Empidonax griseus* Brewst.

Gray Flycatcher.

Apparently to be found in some portion of our County throughout the year. In fall, winter and spring it occurs in the vicinity of Pasadena and El Monte in small numbers. Scarcely a dozen specimens have been secured though they have been looked for with special interest. The earliest specimen in the fall was taken by H. A. Gaylord in the San Gabriel River bottom near El Monte, Nov. 7 ('96), and the latest in the spring, by me near Pasadena, May 4 ('97). Although I have pretty well explored the mountainous parts of the County, I have found the Gray Flycatcher in summer only in one limited locality, on the slopes of Mt. Waterman (7500 to 8500 feet). There, in July, this bird is not uncommon, though very shy, keeping in the tallest pines on the mountain sides. I secured full-fledged juveniles as early as July 11 ('97). Specimens of this species were identified by Wm. Brewster, its original describer, to whom I sent them for determination.

175—471. *Pyrocephalus rubineus mexicanus* (Scl.).

Vermillion Flycatcher.

Rare winter visitant in the lowlands. A female was taken by G. F. Morcom in Los Angeles, Oct. 17, '95. H. A. Gaylord took specimens at El Monte, Oct. 17, '96 (immature male), Dec. 8, '95 (adult male) and Feb. 8, '96 (adult female). Besides these specimens actually taken, others have been occasionally seen in winter in the San Gabriel River bottom.

176—474e. *Otocoris alpestris chrysolæma* (Wagl.).

Mexican Horned Lark.

Abundant resident over most of the lowlands and mesas. Especially numerous on the alkali pasture lands a few miles inland from the coast. In fall and early winter, large flocks gather on newly planted grain fields, and at that season do some damage. Begins breeding early, and continues well into the summer. I have found nearly fledged young the last week in March. I took sets of 3 and 4 fresh eggs on April 17, '95, at Pasadena. G. F. Morcom took an incomplete set of 2 fresh eggs in the San Fernando Valley, June 5, '95.

177—478a. *Cyanocitta stelleri frontalis* (Ridgw.).

Blue-fronted Jay.

Common resident of the coniferous regions in the mountains. During severe winters this Jay appears in the foot-hills along with the Belding's Jay, and sometimes even in the oak regions at lower elevations on the mesas. Breeds late. I took a set of 4, considerably incubated, on June 1, '95, and C. E. Groesbeck took a set of three fresh eggs, on June 4, '96. Both were in the mountains a few miles north of Pasadena. I secured an adult female of this species in perfect albino plumage on Oct. 10, '96.

178—481b. *Aphelocoma californica obscura* Anthony.

Belding's Jay.

Common resident of the scrub oak regions of the foot-hills and mesas. Less common on the brushy mountain sides up to 6000 feet.

Breeds usually in April. A nest was found near Pasadena on March 25 ('97), which contained young about two-thirds grown; this was unusually early. The latest set was of five fresh eggs taken by H. A. Gaylord, May 25 ('95). This is undoubtedly the form to which our *Aphelocoma* are referable, for they are not the same as the true *A. californica* found further north. The habitat of *A. c. obscura*, which was described from the San Pedro Martir Mountains, Lower California, probably extends north, though less and less typically, as far as Tehachapi.

179—486. *Corvus corax sinuatus* (Wagl.).

American Raven.

Common resident in the lower parts of the County, principally in the hill country. Frequently seen flying over the valleys from one range of hills to another, but as a general thing very shy and not venturing into settled regions. Lee Chambers took a set of three slightly incubated eggs near Santa Monica, May 9, '96.

180—487. *Corvus cryptoleucus* Couch.

White-necked Raven.

F. S. Daggett found the partly decomposed remains of one of these birds under a tree in San Fernando Valley, April 18, '97. Possibly the ravens which are common in that section are of this species.

181—488. *Corvus americanus* Aud.

American Crow.

Abundant resident in the lowlands. Breeds commonly in the willow regions in April. Earliest set, of five fresh eggs, taken by M. L. Wicks, Jr., near Santa Monica, April 1 ('93). Latest, of five considerably incubated eggs taken in San Fernando Valley by R. Arnold, May 17 ('94). Sets are of four or five eggs, mostly the latter number.

182—491. *Nucifraga columbiana* (Wils.).

Clarke's Nutcracker.

Common resident in the coniferous forests above 6000 feet. In the vicinity of Mt. Waterman they are very numerous, and I secured full-grown juveniles there in July ('97).

183—492. *Cyanocephalus cyanocephalus* (Wied).

Pinon Jay.

Irregular visitant in the County, mostly in the higher mountains. In the fall of '95, from Sept. 1 to 21, good-sized flocks were seen every day or two in the vicinity of Pasadena flying northwest over the mesas and along the foot-hills. A small flock alighted in some eucalyptus trees in the heart of Pasadena, and remained several minutes before continuing their flight.

184—497. *Xanthocephalus xanthocephalus* (Bonap.).

Yellow-headed Blackbird.

Occurs in large wandering flocks in the lowlands. The adult males are usually seen in bands by themselves, not mixing with the larger flocks which are made up of females and immature males. H. S. Swarth found this species nesting in small numbers in the tule beds

of Nigger Slough. Nests all contained young, June 19, '97.

185—498. *Agelaius phœniceus* (Linn.).

Red-winged Blackbird.

Abundant resident of the lowlands, nesting mostly in tule beds, though often in grain fields, willow thickets and even on the ground. Breeds in the latter part of April and in May. Reliable data concerning the red-winged blackbirds is hard to obtain, as the forms are easily confused, and may even occur breeding together in one locality.

186—498a. *Agelaius phœniceus longirostris* (Salvad.).

Sonoran Red-wing.

A blackbird taken by F. S. Daggett near Pasadena, Nov. 7, '96, is identified by Robert Ridgway as of this subspecies. I have other specimens apparently identical with this bird, taken in March at El Monte. Our blackbirds will require a good deal of study before they can be properly understood.

187—499. *Agelaius gubernator californicus* Nelson.

California Bicolored Blackbird.

Several specimens of this form have been taken in winter at Bixby and El Monte, and it may breed in this County, as it does commonly to the northward; but I have no reliable data, although many eggs purporting to be of this bird have been sent from the County.

188—500. *Agelaius tricolor* (Aud.).

Tricolored Blackbird.

In the lowlands this species occurs in considerable numbers throughout the year. F. S. Daggett has found it numerous at Bixby during the winter. G. F. Morcom found a colony nesting near Compton, and on May 8 ('97), took 35 sets of slightly incubated eggs.

189—501b. *Sturnella magna neglecta* (Aud.).

Western Meadowlark.

A common resident of Meadows and fields from the coast to the base of the mountains. In winter it gathers locally into good-sized flocks, but in summer is more generally distributed. Breeds early: I have seen birds carrying nesting material in January. G. F. Morcom took a set of five slightly incubated eggs, near Los Angeles, March 9 ('95). E. Simmoms took a set of four, slightly incubated, near Pasadena, June 7, ('94).

190—504. *Icterus parisorum* Bonap.

Scott's Oriole.

H. S. Swarth saw an adult male of this species near Los Angeles on April 19, '95. Although the bird was not secured, I have no hesitancy in considering this a good record, as Mr. Swarth is familiar with the species in Arizona, and is sure of the correctness of his identity.

191—505a. *Icterus cucullatus nelsoni* Ridgw.

Arizona Hooded Oriole.

Common in summer about orchards and gardens. Occurs mostly in the mesa regions, but it sometimes follows up the mountain canons

as high as 4000 feet, especially where there are sycamore trees. My notes show the first arrival to be a male on March 15 ('97), and the last seen in the fall, a juvenile, Sept. 18 ('97). Two broods are usually reared in a season. The earliest set was of four slightly incubated eggs taken by me in Pasadena, April 26, ('95). H. Leland found a nest Aug. 3 ('97), containing one fresh egg. On Aug. 25 this nest held a brood of small young. Sets are most always of four.

192—508. *Icterus bullocki* (Swains.).

Bullock's Oriole.

Abundant in summer on the lowlands and mesas. My notes give the first arrival, March 16 ('96), and the latest seen, Aug. 10 ('97). These records were taken at Pasadena, and I have no doubt but that this bird is found much later in the fall in other parts of the County. Breeds mostly in May. First set, five fresh, taken by me near Pasadena, May 7 ('95); last set, five incubation advanced, taken by H. A. Gaylord near Pasadena, July 18 ('94).

193—510. *Scolecophagus cyanocephalus* (Wagl.).

Brewer's Blackbird.

Abundant resident throughout the lower parts of the County. Full sets of eggs are found by the last of April. Evan Davis reports taking eggs in the vicinity of Orange, as early as March 16th.

194—514a. *Coccythraustes vesperinus montanus* (Ridgw.).

Western Evening Grosbeak.

E. B. Towne secured an adult male near Pasadena, Dec. 28, '94. It was with a flock of Western Lark Sparrows among some oak trees. This is our only record.

195—517a. *Carpodacus purpureus californicus* Baird.

California Purple Finch.

Common winter visitant on the mesas and lowlands, haunting thickets and bushy places in small companies. I have noted it about Pasadena from Oct. 27 ('96), till April 29 ('96.) This species probably breeds sparingly in portions of the mountains. I took an adult pair which evidently had a nest near by, on Mt. Wilson, June 22, ('95).

196—518. *Carpodacus cassini* Baird.

Cassin's Purple Finch.

Common resident of the mountains from 4000 feet up to the summits. I have found it rather numerous in July on Mt. Waterman, inhabiting the pine forests. No juveniles were noted, though the females secured showed signs of having recently incubated. This species occurs rarely in winter as low as the foothills, and then but sparingly. At that season they gather in small flocks, feeding in the brush, and seem not to mind the snow, just so the bushes are not entirely covered.

197—519. *Carpodacus mexicanus frontalis* (Say).

House Finch.

This is the well-known "linnet," an abundant resident everywhere from the coast to the foothills. In winter large flocks often

gather in sunflower patches and open fields, but in spring they are pretty well distributed, and nest almost anywhere, even in cactus. Very numerous and familiar about houses and gardens. In the summer these birds do considerable damage to the fruit crop. Breeds in April, May and June. Earliest set, four fresh eggs, taken by me in Pasadena, March 26 ('96). Last set of four fresh eggs, noted by F. B. Jewett near Pasadena, Aug. 1 ('96). Sets are of three to six eggs, ordinarily four or five.

198—529b. *Spinus tristis salicamans* Grinnell.

Willow Goldfinch.

Common resident of the lowlands. In summer they are almost wholly confined to the willow regions, but in winter they gather into flocks and wander everywhere, even into the mountain cañons, where they feed on the buds and seeds of sycamores and alders. Breeds mostly in May and June, though I have found fresh eggs early in April, and small young in August. Sets are four or five.

199—530. *Spinus psaltria* (Say).

Arkansas Goldfinch.

Abundant resident of the foothill regions up to 3000 feet in the cañons. Less common in the lowlands and up to 6000 feet in the mountains. Numerous about gardens and orchards, and in common with the other goldfinches, popularly called "Wild Canaries." Breeds mostly from April to July, but I have found eggs as early as March 22, and in the fall, at least around my home place in Pasadena, they breed regularly until September and in a few cases later. On Oct. 21 ('95) I took a set of three slightly incubated eggs, and during the first week of November ('97) two broods of young left their nests. In all cases these late nests are built in evergreens, and at a considerable height above the ground.

200—531. *Spinus lawrencei* (Cass.).

Lawrence's Goldfinch.

Probably occurs throughout the year, but common only during the spring and early summer months. Inhabits mainly the mesas and mountain cañons and pine forests up to 6000 feet. Breeds in May. The earliest set, of five fresh eggs, was taken by G. F. Morcom at Los Angeles, April 23 ('92); and the latest, a set of five slightly incubated eggs, May 27 ('93), taken by me near Pasadena. I have never noted this goldfinch during the fall months, that is, from September to November, in any part of the county, but in December and on until the last of March, small flocks haunt the banks of the arroyos and weed patches, after which they pair off and scatter through the orchards and cañons.

201—533. *Spinus pinus* (Wils.).

Pine Siskin.

Irregular winter visitant in the willow regions of the lowlands. In 1892 this bird was very abundant during February and March; and it again appeared, though in smaller numbers, during the same months in 1897. They were noted in the neighborhood of El Monte as late as March 20 ('97). In July ('97) I found the Pine Siskin to be tolerably

common in the vicinity of Mt. Waterman (7000 to 8500 feet). An adult female was secured on July 14, which was evidently incubating, and a few days later I saw a full-fledged brood of young following their parents.

202—540a. *Pooecetes gramineus confinis* Baird.

Western Vesper Sparrow.

Common winter visitant. Found in stubble fields and washes, especially on the dry mesas. My earliest and latest records are, respectively, Sept 14 ('97) and March 19 ('95); both near Pasadena.

203—540b. *Pooecetes gramineus affinis* Miller.

Oregon Vesper Sparrow.

Common winter visitant occurring in company with the last, but possibly more numerous on the damper meadows of the lowlands. My earliest record for this subspecies is Sept. 16 ('95). H. A. Gaylord has noted the latest, April 25 ('96); both near Pasadena.

204—542b. *Ammodramus sandwichensis alaudinus* (Bonap.).

Western Savanna Sparrow.

Abundant winter visitant, inhabiting fields and meadows from the coast to the mesas. In the vicinity of Pasadena my earliest and latest records are, respectively, Sept. 18 ('97) and May 3 ('95). I have reason to believe that a few remain to breed in the lowlands near the coast.

205—543. *Ammodramus beldingi* Ridgw.

Belding's Marsh Sparrow.

Abundant resident of the salt water marshes along the coast. Nests in the marsh grass just above the reach of the tide. Breeds mostly in May. Earliest set, four fresh eggs, taken by G. F. Morcom at Ballona, April 14 ('97); latest set, three, incubation advanced, taken by H. A. Gaylord near Long Beach, July 5 ('95).

206—544. *Ammodramus rostratus* Cass.

Large-billed Sparrow.

Common in winter in the salt marshes and along the beaches, but far less numerous than the Belding's Sparrow. In San Pedro Harbor this bird frequents the wharves and breakwaters, and even hops fearlessly about the decks of vessels, feeding on crumbs and flies. Although observed from August to late in April, this sparrow apparently disappears altogether during the summer months, but where it breeds seems to be as yet unknown.

207—546a. *Ammodramus savannarum perpallidus* (Coes.).

Western Grasshopper Sparrow.

On account of its secretive habits this sparrow is not often met with. It frequents grassy fields, where its mouse-like habit of running through the grass, rather than taking flight, renders it difficult to discover. During the winter of 1891-'92 a pair remained in a vacant lot in Pasadena, and became quite tame, so that I could approach within an arm's length without frightening them. G. F. Morcom took an adult male of this species at Los Angeles, April 30 ('95),

which is the latest known occurrence in the spring. W. B. Judson took a specimen at Highland Park, near Los Angeles, Aug. 10 ('97), which might indicate that it had remained throughout the summer.

208—552a. *Chondestes grammacus strigatus* (Swains.).

Western Lark Sparrow.

Common resident in the lower portion of the county. Quite numerous and familiar about cultivated fields and orchards. Breeds mostly in April and May, nesting either on the ground or in trees and bushes. Earliest set, of four fresh eggs, taken by C. E. Groesbeck near Pasadena, April 18 ('95); latest, of three slightly incubated eggs, taken by H. A. Gaylord, July 12 ('94). Sets are of three to five eggs.

209—554a. *Zonotrichia leucophrys intermedia* Ridgw.

Intermediate Sparrow.

Abundant winter visitant from the coast to the foot-hills. Weed-patches and brushy tracts at times fairly swarm with these sparrows; They arrive regularly about the last week in September, my earliest date being Sept. 15, ('95). The bulk leave early in April, though I have shot specimens as late as May 3 ('96).

210—554b. *Zonotrichia leucophrys gambelii* (Nutt.)

Gambel's Sparrow.

H. S. Swarth has a specimen, typical of this subspecies, taken at Los Angeles, Jan. 13, '96. Many of our white-crowned sparrows are intermediate between *gambelii* and *intermedia*, indeed, most which I have examined, are.

211—557. *Zonotrichia coronata* (Pall.).

Golden-crowned Sparrow.

Common winter visitant from the mesas up to 5000 feet on brushy mountain sides. My earliest and latest records are, respectively, Sept. 26, ('96), and May 9, ('96).

212—558. *Zonotrichia albicollis* (Gmel.).

White-throated Sparrow.

H. A. Gaylord secured an immature female near Pasadena, Nov. 21, '94. W. E. Bryant took an adult in Los Angeles, Feb. 25, '97. These are our only records.

213—560a. *Spizella socialis arizonæ* Coues.

Western Chipping Sparrow.

Common resident of orchards and gardens in the mesa regions, and in summer numerous in the coniferous regions on the mountains up to 8500 feet. Breeds mainly in May, laying usually four eggs. First set, of three, probably incomplete, taken near Pasadena by E. Parker April 19 ('96); latest set, 3, slightly incubated, noted by H. A. Gaylord, June 19 ('94).

214—562. *Spizella breweri* Cass.

Brewer's Sparrow.

Tolerably common in summer from 5000 to 7000 feet on the brushy mountain sides between Pine Flats and Mt. Waterman. I secured full-grown juveniles there, July 3 ('97). In spring and fall it occurs spar-

ingly on the mesas and lowlands. I have taken specimens near Pasadena on March 31 ('96), and April 17 ('97). In the fall H. S. Swarth noted good-sized flocks in San Fernando Valley, Sept. 22, '97, and took an immature male in Los Angeles, Sept. 5, '95.

215—565. *Spizella atrigularis* (Cab.).

Black-chinned Sparrow.

Common in summer on brushy mountain sides. I have noted it in the breeding season from the base of the foot-hills up to 7000 feet, where the environment was suitable. In July ('97), I found this bird numerous in the vicinity of Pine Flats, and secured full-grown juveniles, July 3. During the migrations this sparrow occurs sparingly on the mesas along the foot-hills. The earliest spring record is that of a specimen taken by H. S. Swarth at Cahuenga Valley April 1 ('96); the latest in the fall, an immature male, taken by me near Pasadena, Sept. 10 ('97).

216—567. *Junco hyemalis* (Linn.).

Slate-colored Junco.

This bird, usually considered as "accidental" in California, is apparently of pretty regular occurrence in this vicinity, especially so as compared with some other winter visitants which are expected to appear regularly. I took a female near Pasadena Nov. 14 ('96). H. S. Swarth took a male at Los Angeles, Feb. 8 ('97). H. A. Gaylord took a female at Pasadena, Feb. 27 ('97). F. S. Daggett took a male near Pasadena, March 4 ('97), and saw at least seven others in a flock, which had also been seen a week before in the same locality. F. S. Daggett took a male near Pasadena, March 15 ('93), from a flock of fifteen, all apparently of the same species.

217—567a. *Junco hyemalis oregonus* (Townsend).

Oregon Junco.

A single specimen was taken by F. S. Daggett at Pasadena, Nov. 24, '96. This subspecies can at most be but a rare winter visitant.

218—567c. *Junco hyemalis thurberi* Anthony.

Thurber's Junco.

Abundant in summer in the coniferous forests on the mountains. In the winter there is a partial movement to lower elevations, and it appears in small flocks down to the mesas and even further. In the vicinity of Pasadena I have noted it as early as Oct. 3 ('94), and as late as April 13 ('95). Breeds exclusively in the mountains, mainly above 5000 feet. I noted fully fledged young in the mountains north of Pasadena on May 19 ('95). This is extremely early, as the usual nesting time is the latter part of May. The latest set reported is of 5 slightly incubated eggs taken by R. Arnold on Mt. Wilson, June 12 ('92). Full sets consist of 3 to 5 eggs.

219—569. *Junco caniceps* (Woodh.).

Gray-headed Junco.

A single specimen, a female, was taken by W. B. Judson near Pasadena, Oct. 26, '94. This is our only record.

220—573. *Amphispiza bilineata* (Cass.).

Black-throated Sparrow.

I took an adult male in the Arroyo Seco near Pasadena, April 10, '97. This is our only record.

221—574. *Amphispiza belli* (Cass.).

Bell's Sparrow.

Common resident locally on brush-covered washes on the mesas, and in summer up to 5000 feet on the mountain sides. I have taken full-grown young near Pasadena by June 19 ('97).

222—574a. *Amphispiza belli nevadensis* (Ridgw.).

Sage Sparrow.

Tolerably common in summer on the brush-covered slopes in a limited locality at the head of the Tujunga Cañon (3000 to 6000 feet). I secured juveniles near Pine Flats, July 3 ('97). In winter the Sage Sparrow occurs sparingly on the mesas along the base of the mountains.

223—580. *Peucaea ruficeps* (Cass.)

Rufous-crowned Sparrow.

Tolerably common locally in the foot-hills, where it undoubtedly breeds. Occurs throughout the year, but most numerous in April.

224—581c. *Melospiza fasciata heermanni* (Baird).

Heermann's Song Sparrow.

Abundant resident in the lowlands, and in the mesa region in the vicinity of streams and ponds. Breeds mainly from April to June. I took a set of three slightly incubated eggs in Pasadena, March 4 ('96), and on the same date, found a brood of half-fledged young. This is of course exceptionally early. Full sets are of three to five eggs, usually four.

225—583. *Melospiza lincolni* (Aud.).

Lincoln's Sparrow.

Common winter visitant in the lower portion of the county. Generally found in brush in the vicinity of water courses. H. S. Swarth noted the first arrival at Los Angeles, Sept. 18 ('97), and the last in the spring was seen by me at Pasadena, May 3 ('96),

226—585a. *Passerella iliaca unalaschcensis* (Gmel.).

Townsend's Sparrow.

Abundant winter visitant in the brushy tracts of the mountains and foot-hills, and occasionally down on the mesas. H. A. Gaylord reports the earliest in the fall, Sept. 13 ('95); and I took the last specimen in the spring, April 10 ('97). I have a specimen taken on Mt. Wilson, Oct. 31 ('97), which is intermediate in color and markings between this subspecies and true *P. iliaca*.

227—585b. *Passerella iliaca megarhyncha* (Baird).

Thick-billed Sparrow.

Common winter visitant on the brushy mountain sides. I have noted it from Oct. 10 ('96), till April 17 ('97).

228—585c. *Passerella iliaca schistacea* (Baird).

Slate-colored Sparrow.

A female was taken near Los Angeles, Dec. 14, '96 H. S., by Swarth. This is our only positively identified specimen.

229—585d. *Passerella iliaca stephensi* Anthony.

Stephens's Sparrow.

Common in summer on the higher mountains. In July, '97, I found it numerous in the vicinity of Mt. Waterman, above 7000 feet. Its haunts were the growth of brakes and willows which lined the water courses in the cañons. I secured full-grown young by July 10. Probably found in winter at lower elevations, though I have not as yet observed specimens at that season.

230—588a. *Pipilo maculatus megalonyx* (Baird.)

Spurred Towhee.

Abundant resident of brushy regions throughout most of the County. Breeds in the mountains up to the limit of the undergrowth, but in winter few are seen above the foot-hills. Nests mostly in May and June. Extremes: Set four, considerably incubated, taken by A. I. McCormick near Los Angeles, April 15 ('95); set three fresh, taken by me on Barley Flats (5000 feet), July 10 ('95). Full sets are of two to five eggs, usually four.

231—590. *Orcospiza chlorura* (Aud.).

Green-tailed Towhee.

Common summer resident of the higher mountains. I found it rather numerous in the vicinity of Mt. Waterman in July ('97), and secured nearly fledged juveniles on July 10. Occurs occasionally during the migrations along the base of the mountains. H. A. Gaylord noted specimens near Pasadena, April 4 ('96), and April 29 ('97).

232—591c. *Pipilo fuscus senicula* Anthony.

Anthony's Towhee.

Abundant resident of the mesa and foot-hill regions; less common in portions of the lowlands and up to 4000 feet on the brushy mountain sides. Breeds mostly in April and May. I found a brood of nearly fledged young in Pasadena, March 20 ('96), and I have noted fresh eggs late in July. Full sets are of two to five eggs, generally three or four. W. H. Wakely has a perfect albino of this species taken near Pasadena, Feb. 13, '86.

233—596. *Zamelodia melanocephala* (Swains.).

Black-headed Grosbeak.

Common summer resident in the willow regions of the lowlands, and locally up to 7000 feet in the mountains. Arrives early in April. My earliest record is a male, March 30 ('96); and last in the fall, Sept. 22 ('96). Nests mostly in the latter part of May. Extremes: Set three, slightly incubated, taken by W. B. Judson near Los Angeles, May 9, ('97) and set three fresh taken by G. F. Morcom in the Ca-huenga Valley, June 22 ('94). Full sets are of two to four eggs, principally three.

234—597a. *Guiraca caerulea eurhyncha* Coues.

Western Blue Grosbeak.

Tolerably common in summer; found mainly in the mesa regions, and very local even there. Earliest seen near Pasadena, April 25 ('96). Extreme nesting dates: Set four, slightly incubated, taken by M. L. Wicks, Jr., near Los Angeles, May 18 ('89); and set four, slightly incubated, taken by H. Robertson near Los Angeles, June 24 ('93).

235—599. *Passerina amœna* (Say).

Lazuli Bunting.

Common summer resident of the foot-hills and mesas. Extreme dates of arrival and departure according to my notes are respectively, April 4 ('96), and Sept. 17 ('97). This species becomes very scarce after July, and I have only two records for September, including the one quoted above and an earlier. Broods mainly in the latter part of May. Extremes: Set three fresh taken by E. D. Parker near Pasadena, April 30 ('95); and a slightly incubated set taken by A. I. McCormick near Los Angeles, June 23 ('95). Full sets are of two to five, in only one instance of the latter number, usually of four eggs.

236—605. *Calamospiza melanocorys* Stejn.

Lark Bunting.

Casual visitant. An adult male was taken by Ed. Simmons at Newhall, May 3, '97, and two others were seen.

237—607. *Piranga ludoviciana* (Wils.).

Louisiana Tanager.

Common summer resident of the mountain canons and coniferous forests from 1500 to 7000 feet altitude. Extreme dates of arrival and departure are respectively, April 19 ('96) and Sept. 30 ('95). During the spring migrations, in the latter part of April and early May, tanagers occur numerously on the mesas and lowlands, feeding on fruit and berries. Breeds ordinarily about the first week in June. Extremes: Set three, fresh, taken by R. Arnold, May 5 ('95); and set three, slightly incubated, taken by Ed. Simmons, June 30 ('95); both in the canons north of Pasadena. Sets are of three or four, and in one case, noted by R. Arnold, of five eggs.

238—611a. *Progne subis hesperia* Brewst.

Western Martin.

Common in summer mostly in the mountains where they nest in holes in the tall dead firs. Frequently seen flying over the mesas in spring and late summer. A few breed in the oak districts to the west of Sau Fernando Valley. R. Arnold has found them nest-building there by April 1. As yet no eggs of this bird have been taken in the County.

239—612. *Petrochelidon lunifrons* (Say).

Cliff Swallow.

Abundant in summer in the lower portion of the County. Earliest arrival in the spring, noted at Pasadena by H. A. Gaylord, March 8 ('96); latest in the fall, seen by me at Long Beach, Sept. 7 ('95).

Nests mostly on buildings, from May to July. Sets are of four to six eggs.

240—613. *Chelidon erythrogastra* (Bodd.).

Barn Swallow.

Occurs as a tolerably common migrant over the lower parts of the County. My earliest record is March 27 ('96); and in the fall F. S. Daggett has noted it as late as Sept. 30 ('96); both in the vicinity of Pasadena. A few remain through the summer and nest on the bluffs along the coast in the neighborhood of Santa Monica.

241—614. *Tachycineta bicolor* (Vieill.).

Tree Swallow,

Abundant in spring and summer in the willow regions of the lowlands, especially in the vicinity of ponds and marshes. The majority leave in the fall, but a few remain throughout the winter. By the middle of March this swallow again appears in full force and is soon nest-building. Breeds mostly from the last of April through May. Earliest set, four fresh, taken by H. J. Leland near El Monte, April 15 ('97); latest set, five incubated about one-half, taken by E. D. Parker at El Monte, June 9 ('95). Sets are of four to six eggs.

242—615. *Tachycineta thalassina* (Swains.).

Violet-green Swallow.

Abundant summer resident of the mountainous districts, and occurring during migration on the mesas and lowlands. Arrives in large numbers along the foot-hills by the middle of March. My earliest and latest dates are respectively, Feb. 16 ('95) and Oct. 20 ('94). Breeds principally before the last of May. R. Arnoid took a set of five fresh eggs on Mt. Wilson, June 19 ('93). Full sets are of four or five eggs, usually the latter number.

243—616. *Clivicola riparia* (Linn.).

Bank Swallow.

Common in summer in suitable localities on the lowlands. Large numbers nest in the sandy bluffs along the coast. Evan Davis states it to breed in June and July, laying from four to six eggs.

244—617. *Stelgidopteryx serripennis* (Aud.).

Rough-winged Swallow.

Common over the mesas during the spring migrations. In the vicinity of Pasadena, this swallow is most numerous in April, though I have taken it as early as March 12 ('97) near El Monte. A few pair remain to breed along water courses with steep sandy banks. H. A. Gaylord furnishes our only nesting data, that of a set of four fresh eggs taken May 30, '96, near Pasadena. The nest was in a hole in a cement wall in the Arroyo Seco.

245—619. *Ampelis cedrorum* (Vieill.).

Cedar Waxwing.

Irregular winter visitant. At times, usually in the spring months, this species visits us in large numbers, feeding in flocks on the berries of the pepper-trees. My earliest and latest records are, respectively, Sept. 14 ('97) and May 17 ('95). H. J. Leland tells us that he saw a

pair near South Pasadena, June 16 ('97). However, we have as yet no evidence that this bird nests within the County.

246—620. *Phainopepla nitens* (Swains.).

Phainopepla.

Common summer resident, almost exclusively of the dry mesa regions. In the washes and arroyos in the vicinity of Pasadena it is very numerous. Ed. Simmons has noted the earliest arrival, April 9 ('97); and H. S. Swarth noted one near Los Angeles as late as Oct. 19 ('97). An adult male was observed by H. S. Swarth at Los Angeles, Jan. 31 ('98), which must be considered as very unusual. Breeds mostly in June. H. A. Gaylord reports the earliest and latest sets; they are respectively, a set of two, slightly incubated, taken May 4 ('94), and a set of two fresh eggs taken July 28 ('94.) In some seasons most of the sets are of two eggs each, and in other years almost all are of three. This bird is popularly known as Black Mockingbird, and Black-crested Flycatcher.

247—622a. *Lanius ludovicianus excubitorides* (Swains.).

White-rumped Shrike.

Occasional winter visitant, probably straggling from the Desert. I have a specimen taken near Pasadena, Dec. 8, '94.

248—622b. *Lanius ludovicianus gambeli* Ridgw.

California Shrike.

Abundant resident of the lowlands and mesas. The majority nest in the latter part of March and early April. Extreme instances are, a set of five fresh eggs taken by H. J. Leland, Feb. 14 ('97); and a set of six fresh eggs noted by H. A. Gaylord, June 28 ('94); both near Pasadena. Full sets are of four to seven eggs, most often six. This bird is popularly known as the butcher-bird, and is generally disliked; but as it is such a persistent destroyer of the "Jerusalem Cricket" and other injurious insects, it is undoubtedly one of our most beneficial birds from the agriculturalist's standpoint and should be protected.

249—627. *Vireo gilvus* (Vieill.).

Warbling Vireo.

Abundant migrant in most of the County, and a tolerably common summer resident in portions of the mountains. The spring migrations occur mainly in the first three weeks of April, and the return movement, the last week of September. My earliest and latest records are respectively, March 23 ('95) and Oct. 2 ('95). This bird breeds less commonly than any other of our vireos. It occurs very locally, mainly in the mountains, where I found it in the vicinity of Mt. Waterman up to 8000 feet in July. H. A. Gaylord took a set of three slightly incubated eggs in the Arroyo Seco near Pasadena, May 9 ('94); and I took a set of three fresh eggs on Pine Flats (6000 feet) on July 2 ('97).

250—629a. *Vireo solitarius cassinii* (Xantus).

Cassin's Vireo.

Common in summer in the mountains, and during the migrations on the mesas. My earliest and latest dates are, April 4 ('96) and Oct.

2 ('95). Breeds numerous in the mountain cañons from the foothills to 4000 feet elevation, nesting mostly in cottonwoods and white oaks in May. Extreme nesting dates from my field notes: A set five, incubation nearly complete, May 11 ('95); and a set of three, slightly incubated, June 26 ('93); both taken in the Arroyo Seco Cañon north of Pasadena.

251—632. *Vireo huttoni* Cass.

Hutton's Vireo.

A common bird throughout the year; although it occurs from the willow regions in the lowlands up to 6000 feet in the mountains, decided preference seems to be shown for the oak regions of the mesas and foothills. The breeding season is quite extensive, as shown by the following extremes: A set of three fresh eggs, taken by me in the foothills north of Pasadena, March 7 ('96); and a set of four fresh eggs, taken by H. A. Gaylord near Pasadena, July 15 ('94). However, the majority of sets are laid in April and May. Full sets are of three or four.

252—633a. *Vireo bellii pusillus* (Coues).

Least Vireo.

Abundant in summer in the willow regions of the lowlands, and along streams up to the foothills. Arrives by the first week in April and leaves during the last week of August. My earliest and latest dates are, respectively, March 26 ('96) and Sept. 8 ('97). Breeds mainly during the latter part of May. Extremes: Sets of four fresh eggs, both taken near Los Angeles by H. Robertson, earliest, April 28 ('97) and latest, June 15 ('97). Full sets are almost invariably of four eggs.

253—636. *Mniotilta varia* (Linn.).

Black and White Warbler.

Only one record: An immature female was taken in the Arroyo Seco near Pasadena by H. A. Gaylord, Oct. 2, '95.

254—645a. *Helminthophila rubricapilla gutturalis* Ridgw.

Calaveras Warbler.

Common spring and fall migrant. Noted in the spring mostly in the foothill and mesa regions. Earliest specimen, taken by me, April 4 ('96); latest, by H. A. Gaylord, May 1 ('96). In the fall this warbler appears mainly in the lowlands. In the vicinity of Los Angeles H. S. Swarth has noted it from Sept. 13 ('97) to Oct. 8 ('96).

255—646a. *Helminthophila celata lutescens* (Ridgw.).

Lutescent Warbler.

Tolerably common in summer in cañons and on brushy mountain sides up to 6000 feet. Abundant spring migrant, appearing in greatest numbers in April. Earliest specimen of this race, taken by me, March 6 ('97); last taken in the fall, Sept. 8 ('97). Breeds in April and May. I took a female on April 4 ('96) which contained a fully formed egg. Juveniles were secured early in July ('95) on Pine Flats (6000 feet).

256—646b. *Helminthophila celata sordida* Townsend.

Dusky Warbler.

This subspecies appears in the vicinity of Pasadena in the oak re-

gions and along the arroyos in large numbers during August, and even by the middle of July. Remains in diminishing numbers through the winter; the latest specimen noted in the spring was secured by me, Feb. 29 ('96). This race is apparently quite distinct from the last, and is probably a visitant to the mainland from the neighboring islands of San Clemente and Santa Catalina at a season when the latter are dry and uninviting. The large size, especially of the bill and feet, and darker colors of *H. c. sordida* render it readily distinguishable from the small yellow *lutescens*. The birds found breeding in this county are evidently of the latter race.

257—647. *Helminthophila peregrina* (Wils.).

Tennessee Warbler.

Only one record: I shot an immature female in the Arroyo Seco Cañon near Pasadena, Sept. 27, '97.

258—652. *Dendroica aestiva* (Gmel.).

Yellow Warbler.

Common summer resident in wooded localities, especially along streams, from the willow regions to 5000 feet altitude in the mountains. My earliest and latest dates are, April 2 ('95) and Sept. 22 ('94). During the migrations in April and September, this warbler is particularly numerous and well distributed over the mesas and lowlands. The breeding season commences by the second week in May. Extreme nesting dates: Set four, slightly incubated, taken by H. A. Gaylord near Los Angeles, May 12 ('95); and set of three fresh eggs, taken by me near Pasadena, June 26 ('93). Full sets are almost invariably of four eggs.

259—655. *Dendroica coronata* (Linn.).

Myrtle Warbler.

Tolerably common winter visitant, associating with Audubon's Warbler. Specimens have been taken during December, January and February.

260—656. *Dendroica auduboni* (Town.).

Audubon's Warbler.

Very abundant and generally distributed throughout the county during the winter; in moderate numbers in the higher mountains through the summer. It appears in the lowlands about the first week in October, and remains until the first of April, while I have noted a few along the foothills as late as May 1. In summer it is found in the coniferous forests on the mountains above 5000 feet altitude. W. B. Judson took a set of five fresh eggs on Mt. Wilson, May 29, '97. I observed full-grown juveniles in the same locality on June 22 ('95).

261—657. *Dendroica maculosa* (Gmel.).

Magnolia Warbler.

Only one record: H. S. Swarth took an immature female near Los Angeles on Oct. 21, '97.

262—665. *Dendroica nigrescens* (Town.).

Black-throated Gray Warbler.

Common summer resident of the mountains from the foothills up

to 6000 feet, and in the migrations occurring in considerable numbers over the mesas and lowlands. The earliest noted was a male taken by me, March 23 ('95), and by the second week in April they are present in full force. H. A. Gaylord has the latest record, Oct. 23 ('95). During the breeding season, the scrub oak regions of the mountain sides are the preferred haunts of this warbler. Most of the sets have been taken about the last week of May, but I found a nest with four small young, in the mountains north of Pasadena, May 19 ('95), and R. Arnold took a set of three considerably incubated eggs in the same vicinity, June 26 ('96). Four eggs constitute the usual set.

263—668. *Dendroica townsendi* (Townsend.).

Townsend's Warbler.

Tolerably common migrant, though not regularly so. During the last week of April, '96, it was fairly numerous in the vicinity of Pasadena, but in the spring of 1897 none were observed. The first noted was on April 22, and the latest, May 13. In the fall I have taken one specimen, Oct. 2 ('95). A few probably pass the winter with us if the weather is not severe. I saw several on Mt. Wilson, Dec. 12 ('96), and took a specimen in the same locality, Jan. 27 ('94).

264—669. *Dendroica occidentalis* (Townsend.).

Hermit Warbler.

In the spring migrations this warbler is in some years tolerably common, though not detected at all in others. In the spring of '96 it was numerous about Pasadena. I noted the earliest, April 22, and the latest, May 17. H. S. Swarth reports a specimen near Los Angeles, Sept. 10 ('97).

265—680. *Geothlypis macgillivrayi* (Aud.).

Macgillivray's Warbler.

This is a common spring migrant along the base of the foot-hills, and in the fall in much smaller numbers out on the lowlands. It arrives by the second week in April, and I have taken it as early as April 4 ('96); the last was observed by H. A. Gaylord, May 13 ('96). In the fall, H. S. Swarth has noted it in the vicinity of Los Angeles from Sept. 4 ('97) to Oct. 13 ('96).

266—681a. *Geothlypis trichas occidentalis* Brewster.

Western Yellow-throat.

Common resident of marshy tracts throughout the lowlands, and appears abundantly during the migrations along the foot-hills and on the mesas. Breeds in April and May. Extremes: Set of four fresh eggs taken by H. J. Leland near Pasadena, April 7 ('97); and a similar set taken by H. A. Gaylord in the same locality, June 6 ('95). Full sets are almost invariably of four eggs.

267—683a. *Icteria virens longicauda* (Lawrence.).

Long-tailed Chat.

Common summer resident in the willow regions of the lowlands, and in small numbers during the migrations along the foot-hills. The earliest specimen noted in the vicinity of Pasadena, was a male, April 18 ('95), but they probably arrive on their breeding grounds some-

what earlier. F. S. Daggett took it as late in the fall as Sept. 29 ('96). Breeds mostly during the latter part of May. Extremes: Set of four fresh eggs taken near Pasadena by H. J. Leland, May 10 ('97), and a similar set taken June 10 ('96), by H. Robertson near Los Angeles.

268—685a. *Sylvania pusilla pileolata* (Pall.).

Pileolated Warbler.

Abundant migrant throughout the lower parts of the county, and more or less common summer resident in the willow regions. Appears in numbers usually by the first week in April, though I took an adult male near El Monte, Feb. 16 ('95); last in the fall, Oct. 27 ('94). Breeds most commonly about the middle of May; A. I. McCormick took a set of five fresh eggs near Los Angeles, April 28 ('97), and G. F. Morcom took a set of four slightly incubated eggs at Cerritos, April 24 ('97); H. Robertson took a set of four fresh eggs in the former locality May 31 ('97).

269—697. *Anthus pensilvanicus* (Lath.).

American Pipit.

Abundant winter visitant in the lowlands; especially numerous and more generally distributed during the seasons of heavy rain-fall. My notes taken in the vicinity of South Pasadena and El Monte, give the earliest and latest, respectively, Aug. 29 ('95), and April 3 ('95).

270—701. *Cinclus mexicanus* Swains.

American Dipper.

Met with in small numbers along streams in the mountainous parts of the County. Resident throughout the year. H. Arnold took a set of four slightly incubated eggs in Eaton's cañon north of Pasadena, April 22, '94, and the same collector found a nest with four young in the San Gabriel cañon, May 27, '94.

271—702. *Oroscoptes montanus* (Townsend).

Sage Thrasher.

Rare straggler from the Desert. H. S. Swarth secured a pair in San Fernando Valley, March 13, '97.

272—703. *Mimus polyglottos* (Linn.).

Mockingbird.

Common and familiar resident of orchards and gardens throughout the lower portion of the County, and of dry washes and arroyos in the mesa regions. Breeds as a rule by the first of May. I took a set of 4 considerably incubated eggs on April 16 ('95) which is my earliest date, and as two or even three broods are reared in a season, nesting continues sometimes into August. Full sets consist of four, rarely five eggs.

273—710. *Harporhynchus redivivus* (Gamb.).

Californian Thrasher.

Common resident of brushy localities from the lowlands up to 6000 feet in the mountains. Breeds mainly in March and April. H. J. Leland took a set of 2 considerably incubated eggs near Pasadena on January 27 ('97) which of course is exceptionally early. H. A.

Gaylord took a set of 3 fresh eggs near Pasadena, June 26 ('94) which is also exceptional in being so late. Full sets are of 2 to 4 eggs, usually 3.

274—713. *Heleodytes brunneicapillus*. (Laf.).

Cactus Wren.

Common resident locally on cactus covered washes in the mesa regions. Breeds mostly in April, but I took a set of 5 fresh eggs near Pasadena, March 18 ('92) and a set of 4 fresh eggs in the same locality June 28 ('92). Full sets are of 4 or 5 eggs, sometimes 6. M. L. Wicks, Jr., took a set of 7 fresh eggs near San Gabriel, May 25. ('89).

275—715. *Salpinctes obsoletus* (Say).

Rock Wren.

Common winter visitant along dry washes, and tolerably common throughout the year in certain limited localities from the coast to the highest mountains. I took nearly fledged young near the summit of Mt. Waterman (8500 feet) on July 20 ('95).

276—717b. *Catherpes mexicanus punctulatus* Ridgw.

Dotted Canon Wren.

Tolerably common resident in the mountain cañons up to 6000 feet. Breeds in the rockiest and steepest cañons usually in the neighborhood of a stream. I took a set of 5 eggs, incubation advanced, in the Arroyo Seco Cañon north of Pasadena, May 5 ('94) and a set of 6 fresh eggs in the same locality, June 23 ('93). These probably indicate the extent of the breeding season. Sets are of 5 to 7 eggs.

277—719a. *Thryothorus bewickii spilurus* (Vig.).

Vigors's Wren.

Abundant resident of brushy mountain sides, the majority descending in winter to the foot-hills and mesas. Full-fledged young appear commonly by the middle of May, so that nesting probably begins early in April. R. Arnold took a set of 4 fresh eggs near San Fernando, June 7 ('96).

278—721a. *Troglodytes aëdon parkmanii* (Aud.).

Parkman's Wren.

Resident throughout the year, but much less common in winter than in summer. Occurs from the lowlands to the highest mountains. Generally found in wooded localities, where it breeds in May. Extreme nesting dates: Set of 8 fresh eggs taken by me near Pasadena, April 20 ('95), and a set of 7 fresh eggs taken by H. A. Gaylord in the West Fork of the San Gabriel Cañon, June 18 ('93). Sets are of 5 to 9 eggs, usually of 7 or 8.

279—722a. *Troglodytes hiemalis pacificus* Baird.

Western Winter Wren.

So far, detected in small numbers during the winter only, in a very limited locality in the mountains north of Pasadena. I have secured specimens by Oct. 23 ('97), and none later than Jan. 25 ('96). The Arroyo Seco and Millard's Cañons, and Mt. Wilson, are the only localities where they have been discovered.

280—725a. *Cistothorus palustris paludicola* Baird.

Tule Wren.

Common resident of swampy regions in the lowlands. In fall and winter it appears in localities where not found at other seasons, and haunts weed-patches and rank grass. Breeds in the tule swamps principally in May. H. Leland found nests with young nearly two-thirds grown at El Monte by April 25 ('97). W. B. Judson took a set of 5 fresh eggs near Santa Monica, May 30 ('95). This last is our latest nesting date, though eggs are probably laid much later.

281—726c. *Certhia familiaris occidentalis* Ridgw.

Californian Creeper.

Common resident of the coniferous forests on the mountains. It is observed from 3000 feet up to 8500 feet. Juveniles appear by the middle of July. W. B. Judson found a nest on Mt. Wilson, containing 3 fresh eggs, on May 29 ('97).

282—727a. *Sitta carolinensis aculeata* (Cass.).

Slender-billed Nuthatch.

Common resident of the coniferous forests on the mountains; usually found above 4000 feet, but F. S. Daggett took a specimen in the oaks south of Pasadena, Aug. 26, ('96). I took juveniles in the vicinity of Mt. Waterman by July 15 ('97).

283—728. *Sitta canadensis* Linn.

Red-breasted Nuthatch.

Irregular visitant in the mountains above 4000 feet. Occurs mostly in winter, but I found it on Mt. Wilson as late as May 9 ('96), and H. A. Gaylord noted it again on Barley Flats, by Sept. 11 ('95).

284—730. *Sitta pygmaea* Vig.

Pygmy Nuthatch.

Common resident of the coniferous forests on the higher mountains. It is abundant on Pine Flats, and I took full-grown juveniles there as early as July 2 ('97).

285—733. *Parus inornatus* Gamb.

Plain Titmouse.

Common resident in the coniferous regions from the lower country up to 6000 feet on the mountain sides. Breeds mainly in April. I took a set of nine fresh eggs near Pasadena, April 13 ('96), and a set of six slightly incubated eggs in the same locality, May 12 ('94). These probably indicate the extent of the breeding season.

286—738. *Parus gambeli* Ridgw.

Mountain Chickadee.

Common resident in the coniferous forests on the mountains. Occasionally, in severe winters, a few descend to the oak regions out on the mesas, but they generally remain above 4000 feet. Full-grown young appear by the first of July, so that nesting probably takes place about the middle or last of May.

287—742a. *Chamæa fasciata henshawi* Ridgw.

Pallid Wren-Tit.

Abundant resident of brushy regions from the mesas up to 6000 feet on the mountain sides. Most numerous in the foot-hills, where it breeds during the latter part of April and in May. Earliest set, probably incomplete, of three fresh eggs taken by H. J. Leland near Pasadena, April 10 ('97); latest set of four considerably incubated eggs taken by me in the same locality, June 25 ('97). Sets are of three to five eggs, usually 4.

288—743a. *Psaltriparus minimus californicus* Ridgw.

California Bush-Tit.

Abundant resident in wooded and brushy regions, especially in the foot-hills. Breeds generally in April. Extreme dates: Incomplete set of four eggs taken by C. E. Groesbeck near Pasadena, March 7 ('96), and a set of seven fresh eggs taken by H. A. Gaylord in the same locality, July 18 ('94). Full sets are of five to eight eggs, usually six or seven.

289—748a. *Regulus satrapa olivaceus* Baird.

Western Golden-crowned Kinglet.

Tolerably common mid-winter visitant on the higher mountains. So far, noted only on Mt. Wilson where it occurs in flocks of five to eight in the fir forests. I have observed it there as early as Oct. 30 ('97), and specimens were secured Oct. 31 ('96).

290—749. *Regulus calendula* (Linn.).

Ruby-crowned Kinglet.

Abundant winter visitant throughout the County, and present through the summer in small numbers on the highest mountains. Arrives in the lowlands early in October and leaves by the last of March. Extreme dates from observations in the vicinity of Pasadena: Sept. 24 ('96), and April 15 ('96). On July 14 ('97), I took an adult female on Mt. Waterman (8500 feet), which undoubtedly had a nest in the vicinity, probably with young.

291—751a. *Poliophtila ærulea obscura* Ridgw.

Western Gnatcatcher.

Common resident in wooded and brushy localities, especially in the oak regions. Breeds mostly in May, but I found a nest near Pasadena containing young, May 4 ('95), and G. F. Morcom took a set of four fresh eggs in the Cahuenga Valley as late as June 12 ('93). Full sets are of four or five eggs.

292—753. *Poliophtila californica* Brewst.

Black-tailed Gnatcatcher.

Common resident in a few limited localities on brushy mesas and washes, principally along the base of the foot-hills. Numerous in San Fernando Valley and about Pomona and Claremont, but around Pasadena, which is between these two localities and apparently offers similar attractions, I have never seen but one specimen. Breeds mostly about the middle of May. E. D. Parker took a set of four fresh eggs

near Claremont, April 12 ('97) and G. F. Morcom took a set of three slightly incubated eggs in San Fernando Valley, June 29 ('96). Full sets are of three to five eggs, generally four.

293—754. *Myadestes townsendii* (Aud.).

Townsend's Soletaire.

Tolerably common winter visitant in the mountains, occasionally appearing as low as the mesas. My earliest and latest records from the vicinity of Mt. Wilson are, respectively, Oct. 30 ('97) and May 9 ('96).

294—758. *Turdus ustulatus* Nutt.

Russet-backed Thrush.

Common summer resident in the willow regions of the lowlands. Appears during the spring migrations, last of April and first week in May, on the mesas and in the mountain cañons. H. A. Gaylord noted the earliest, April 12 ('96), and F. S. Daggett noted the last, Sept. 14 ('96). Breeds mostly about the last week in May. Extremes: Set of 4 fresh eggs taken by C. E. Groesbeck near Pasadena, May 17 ('93), and a set of 3 slightly incubated eggs taken by H. A. Gaylord in the same locality, July 11 ('94).

295—759. *Turdus aonalaschkæ* Gmel.

Dwarf Hermit Thrush.

Abundant winter visitant in most of the county, especially in the foot-hills, where it feeds on the berries of the California Holly. My earliest and latest records are, Oct. 10 ('96) and May 9 ('96).

296—759a. *Turdus aonalaschkæ auduboni* (Baird).

Audubon's Hermit Thrush.

An adult male thrush taken by me near Pasadena, Jan. 23, '97, was identified as of this race by Robert Ridgway.

297—761a. *Merula migratoria propinqua* Ridgw.

Western Robin.

More or less common winter visitant throughout most of the county, remaining through the summer in small numbers on the higher mountains. Frequently appears in the lowlands and on the mesas in large flocks, especially in wet winters. In the early spring months they come into town, feeding on the berries of the pepper trees. My earliest and latest records in the neighborhood of Pasadena are, Oct. 5 ('97) and April 17 ('97). M. L. Wicks, Jr., found a nest containing young but a day or two old, near Mt. Waterman, July 4 ('95).

298—763. *Hesperocichla nævia* (Gmel.).

Varied Thrush.

Usually a common winter visitant, but occasionally, during the winter of '95-'96 for example, scarcely any are seen in the county. First arrival, a male, noted by me Nov. 25 ('96); latest in the spring, a female, April 10 ('97). Most common in the foot-hills, but noted from the crests of the mountains nearly to sea level. Especially numerous wherever the California Holly grows abundantly.

299—767. *Sialia mexicana occidentalis* (Townsend).

Western Bluebird.

Common winter visitant in most of the lower parts of the county, and abundant through the summer and most of the winter in the higher mountains. A few remain through the summer and breed in the vicinity of Pasadena. H. A. Gaylord reports a set of 4 slightly incubated eggs found near Pasadena, May 24, '92. Ed. Simmons took a set of six considerably incubated eggs near Newhall, May 4 ('97). H. J. Leland took a set of four fresh eggs on Pine Flats (6000 feet), June 6 ('96).

300—768. *Sialia arctica* Swains.

Mountain Bluebird.

More or less common winter visitant in the lower parts of the county. Generally seen in large scattering flocks in vineyards and young orchards. I saw a small flock on Mt. Wilson, Oct. 31 ('97). H. A. Gaylord noted them near Pasadena as late as March 14 ('95).

