







64  
COOPER ORNITHOLOGICAL CLUB

PACIFIC COAST AVIFAUNA  
NUMBER II

A DISTRIBUTIONAL LIST OF THE  
BIRDS OF CALIFORNIA

BY

JOSEPH GRINNELL

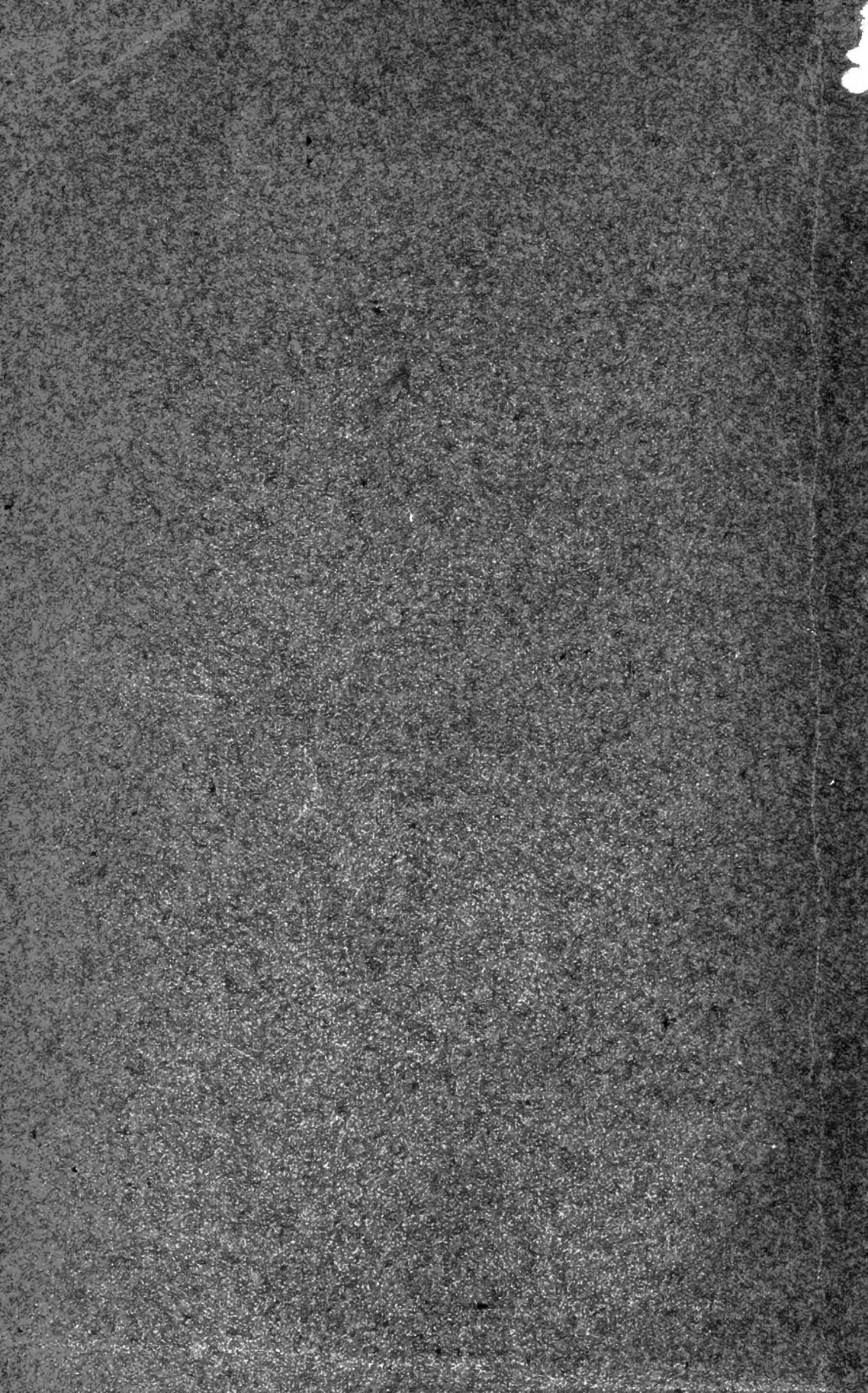
CONTRIBUTION FROM THE MUSEUM OF VERTEBRATE ZOOLOGY  
OF THE UNIVERSITY OF CALIFORNIA



HOLLYWOOD, CALIFORNIA

PUBLISHED BY THE CLUB

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#### NOTE

PACIFIC COAST AVIFAUNA No. 11 is the eleventh in a series of publications issued by the Cooper Ornithological Club for the accommodation of papers whose length prohibits their appearance in THE CONDOR.

The publications of the Cooper Ornithological Club consist of two series—THE CONDOR, which is the bi-monthly official organ, and the PACIFIC COAST AVIFAUNA.

For information as to either of the above series, address one of the Club Business Managers, J. Eugene Law, Hollywood, California, or W. Lee Chambers, Eagle Rock, California.

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## INTRODUCTION

Apparently the first attempt to catalog all the birds known at any one time from California was made by Dr. James G. Cooper in his unsigned contribution to Cronise's *Natural Wealth of California* (pp. 448-480), published in 1868. A brief running account is there given of 353 species. In 1890, Lyman Belding (*Occasional Papers*, II, California Academy of Sciences) ascribed 295 species of land birds to California, and in 1892, Walter E. Bryant (*Zoo*, III, pp. 135-140) listed 150 water birds, making a total of 445 species and subspecies then credited to the state. Ten years later, in *Pacific Coast Avifauna* number 3, 1902, the present writer enumerated, with brief annotations, 491 species and subspecies; and in 1912, in *Pacific Coast Avifauna* number 8, the same author gave a nominal list of 530 forms. The present contribution shows a total of 541 species and subspecies believed at the time of going to press, May 1, 1915, to properly belong to the Recent avifauna of the state.

Of course, in each of the previous lists there have been some erroneous entries; but the omission of these names in the succeeding list has always been more than compensated for by additions during the intervening period. This process may be expected to continue almost *ad infinitum*, as long as faunal lists are published. As in the fifteen years or so just past, the increments will come chiefly through the detection of stragglers, and, judging from the nature of those already recorded, individuals representing practically every species and subspecies in North America and the adjacent waters may be expected to reach California sooner or later. This would probably hold true as well for any other area in temperate America.

A notable part of the recent expansion in our state list has been due to more intensive exploration, to the accumulation of series of specimens more or less fully representing practically all of our faunal areas, and to the resulting activity in subspecific discrimination made possible by these favoring circumstances.

While a great gain has been evident of recent years in the accumulation of materials for the study of avian distribution, our basis for exhaustive research in this line is yet far from ideal. The present writer, after having gone over the literature with considerable care, confesses that there is still so much to be desired that he has been discouraged from attempting now, as originally planned, a far more detailed definition of the range of each species of California bird.

An example of how he had wished to undertake such a treatment is to be found in his paper on the "Distribution of the Mockingbird in California" (*Auk*, xxviii, 1911, pp. 293-300, map). Part of the trouble lies in the general lack of accurate systematic analyses of the variable groups of birds. Systematic ornithology is popularly supposed to have reached such a high plane that no further work remains to be done. As a matter of fact, the status of very many forms, both species and subspecies, is but imperfectly understood, and consequently it is impossible to map their distribution accurately. The type of work needed in this connection is well illustrated in Swarth's paper entitled "The California Forms of the Genus *Psaltriparus*" (*Auk*, xxxi, 1914, pp. 499-526, pl. XL). A score of other groups demand similar close attention.

There is marked need for much further field work, such as any conscientious student of birds can engage in locally, whereby relative numbers of each species will be ascertained for restricted areas throughout the year. The census idea is an excellent one in this connection, and it is to be hoped that greatly improved methods of recording bird populations will be developed, so that distributional behavior can be expressed in more nearly exact terms than is at present possible.

In the main list comprising the bulk of the present paper, the author has exercised care in admitting little known species to full standing. Where, after due enquiry, grounds have been found for doubting the validity of a record, it has been relegated to the Hypothetical List as a species credited to California on unsatisfactory grounds (see p. 173), or else the name appears under the synonymy of some other form, or sometimes both dispositions have been made of the doubtful record. With rare, so-called "accidental", species, the bird must, as a rule, have been secured and preserved in some accessible collection so as to be subject to re-identification whenever desirable. The oft-repeated maxim holds: That the more unusual and hence unexpected the alleged occurrence of a species, the better must be the evidence in the case; such evidence must be reasonably conclusive to warrant its acceptance as authentic.

## PLAN OF TREATMENT

It is important that the limitations of the following treatment of species be clearly understood; too much must not be expected of it, and at the same time its full scope of usefulness should be realized.

The systematic order is that of the American Ornithologists' Union *Check-List* (1910), except that within groups of species or subspecies a more natural arrangement is sometimes adopted, for example by according with geographical sequence. The A. O. U. order is thus accepted here because of the convenience thereby admittedly secured, in concurring with the bulk of current ornithological literature. That the classification indicated is quite unsatisfactory cannot be gainsaid. (See *Pacific Coast Avifauna* no. 8, 1912, p. 5.)

The first number, in bold-face type, is the running number of this list. The second number, in parenthesis, is that of the species as enumerated in the third edition (1910) of the A. O. U. *Check-List*. This may serve to facilitate concordance where the names are different. The term *part*, within the parenthesis, is used where the subspecies or species here given full standing is not also separately recognized in the A. O. U. list, but is included both geographically and systematically with the species whose number is cited.

The nomenclature in large measure follows that adopted by the A. O. U. Committee on Nomenclature up to and including the Sixteenth Supplement (July, 1912). In a few cases departure from this standard has seemed justified because of the clearness of the contrary evidence as presented by the original investigator, or because my own knowledge of the problems concerned seems to provide sufficient ground for the expression of positive opinion. These points of difference as a rule concern subspecies only.

The synonyms given are only those which have been applied to the species *as occurring in California*. No effort has been made to obtain a complete list of vernacular appellations, only the more common book names being given. But the scientific names have been collected during rather exhaustive search and are believed to include very nearly all ever applied to any bird of the state. The term *part* is employed in connection with such names as have been applied to more than one species or subspecies in California. Minor departures in spelling from better known forms of names are not included; for example *Dendrocca* for *Dendroica*, *unalascae* for *aonalaschkae*, etc. Diphthongs are not indicated by the use of connected vowels. Possessives in vernacular names are ignored. All

printed synonyms are entered in the Index, so that the latter may be used as a means of identifying any name in the literature of California ornithology.

The terms employed for comparative abundance are the usual simple and relative ones: *Abundant*, *common*, *fairly common*, *rare*. Seasonal status is indicated by these terms: *Resident*, meaning permanently present throughout the year; *summer visitant*, indicating presence only during the summer season which is also usually the breeding season; *winter visitant*, of obvious meaning, complementary to summer visitant; *transient*, passing through during spring and fall migrations and tarrying neither for the summer nor the winter. Occasional qualifying words are used, with the intention always of leaving the meaning clear.

This is solely a distributional paper; it has nothing to do with migration, extent of breeding season, or systematic status, except in the latter case in so far as is necessary to elucidate distribution. The distributional terms employed are explained on succeeding pages (pp. 9-12). The maps (pls. I-III) should be continually consulted. In using this list it must be kept in mind that only with the rarer species are *all* records of occurrence cited. With by far the greater number of species, only the first or most important for each critical locality is given; also only such localities are specifically noted as represent extremes of range, like northernmost, easternmost, etc., or are otherwise specially worthy of attention.

Citations to articles are, of course, given in uniformly abbreviated form. Where the title of the periodical or book is not clearly apparent, reference should be made to my Bibliography of California Ornithology (*Pacific Coast Avifauna* number 5, 1909). Where more than one person of the same surname has contributed to Californian ornithology, the appropriate initials are used in citation; for example, J. G. Cooper, W. A. Cooper. But otherwise the surname alone has seemed sufficient; as: Gambel, Heermann, Torrey.





An effort has been made to give the location, in museums or private collections, of specimens which form the basis of extraordinary records, as in the case of species which have been reported from the state less than four times.

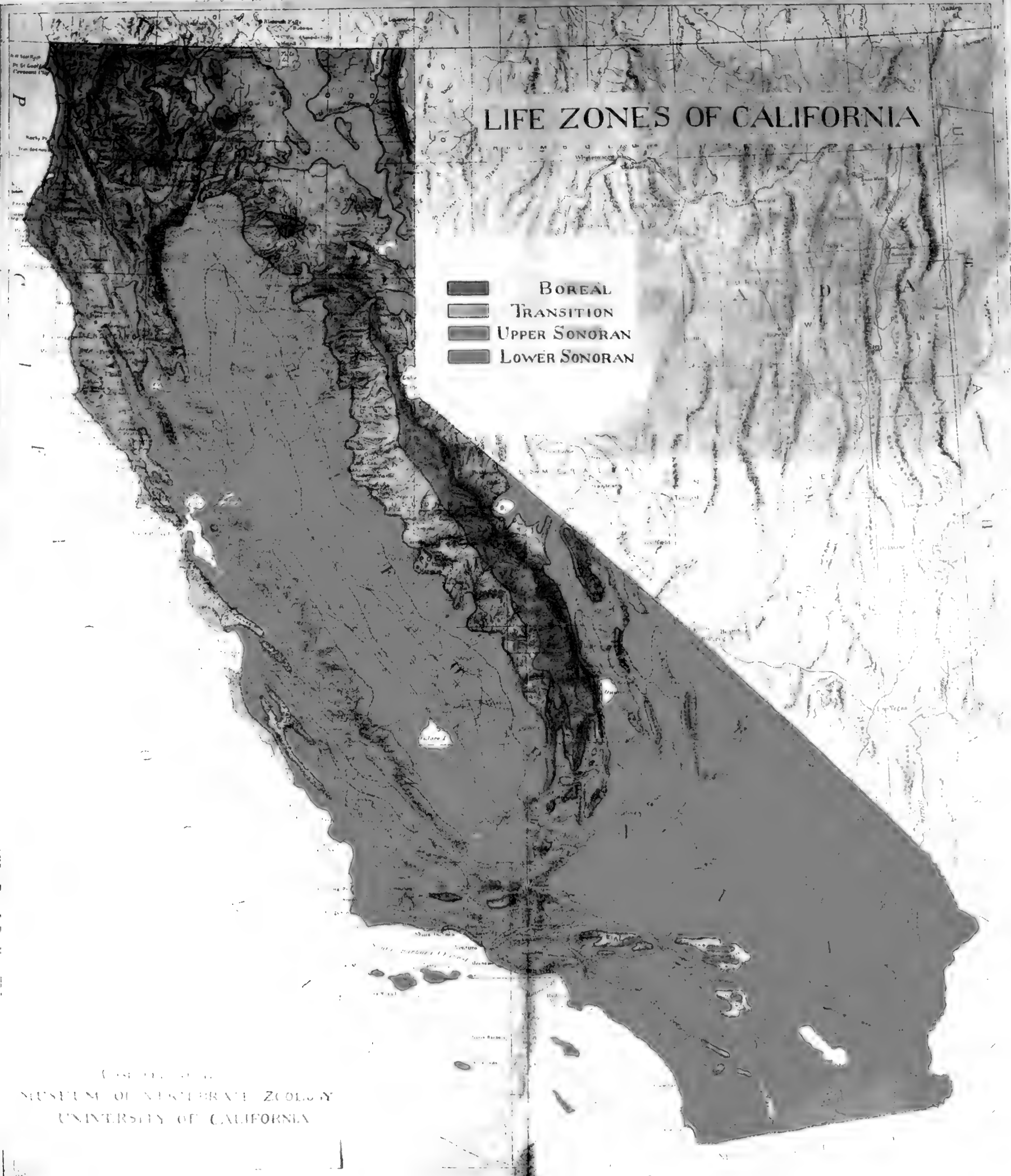




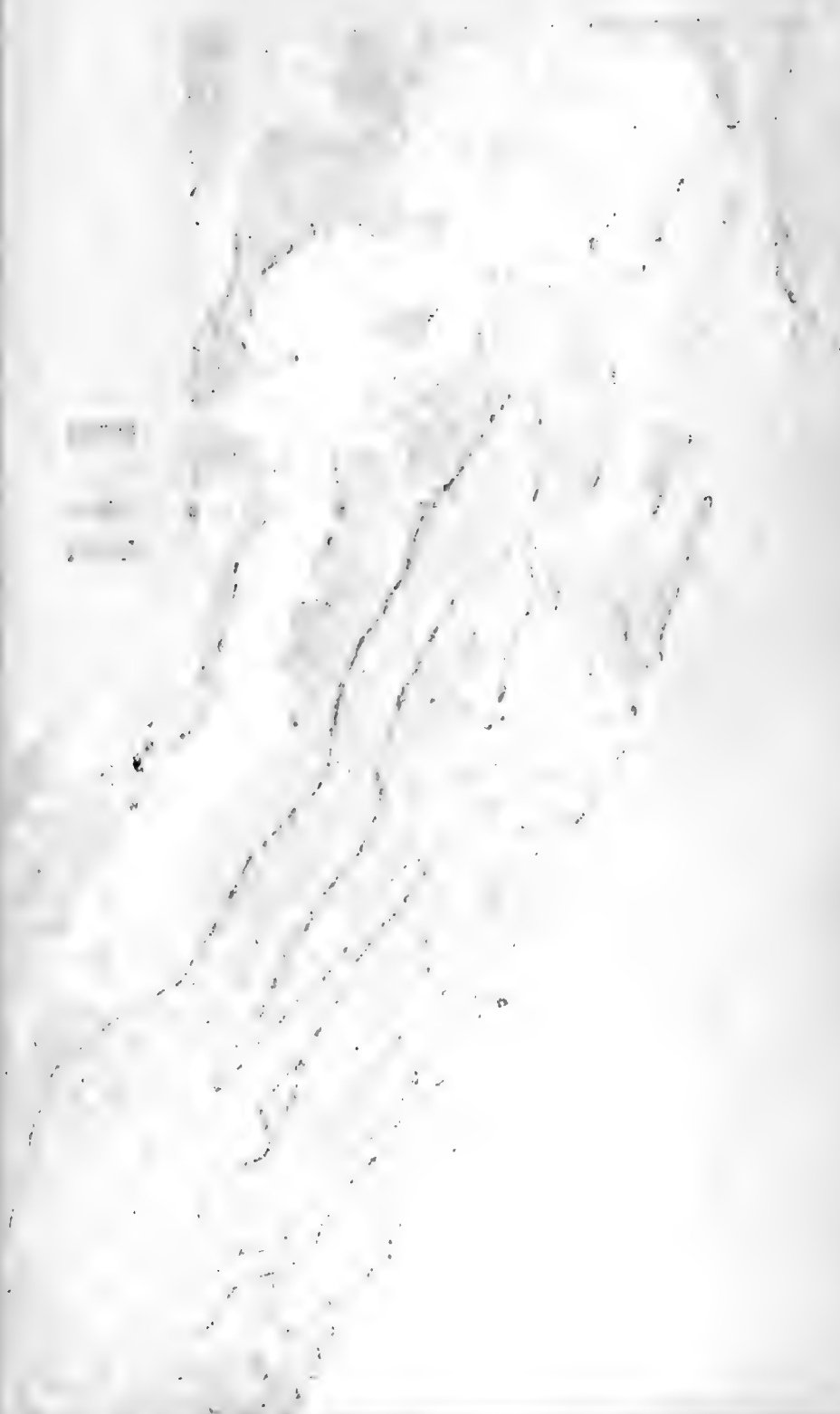


# LIFE ZONES OF CALIFORNIA

-  BOREAL
-  TRANSITION
-  UPPER SONORAN
-  LOWER SONORAN



UNIVERSITY OF CALIFORNIA  
MUSEUM OF NEPENTHATE ZOOLOGY  
UNIVERSITY OF CALIFORNIA



## DISTRIBUTIONAL AREAS

Close study of the life of any geographic area of large extent invariably shows that, in dealing with the ranges of the included species, certain more or less definite subdivisions may be usefully recognized. In other words, instead of homogeneity in faunal composition, we find marked change from place to place; and this change manifests itself in the exclusive presence, in a given portion of the territory, of certain species, and in the absence of other species, present in contiguous portions of the territory. There is usually conspicuous agreement in the occurrence of a goodly proportion of the entire complement of species, and this makes possible the characterization of minor areas relatively uniform within themselves. These latter are found to be separated by narrow marginal strips of country where species drop out and others come in, and where, in the case of subspecies, intergradation of forms takes place.

Each species or subspecies has a definite range, in which it is normally abundant. It is the fact of approximate coincidence in the ranges of several or many species that makes it possible to definitely characterize distributional areas. These may be of varying rank, according as a greater or less percent of the total complement of species is peculiar to each. A good parallel is afforded, in illustration, by the manner in which characters are used in establishing systematic groups; relatively few characters distinguish species and subspecies; progressively more justify successively higher groups.

No such proportional treatment as just suggested has as yet been applied in the attempt to divide California into zoogeographic areas. Data in hand, while seemingly great in quantity, are still not sufficient to afford satisfactory basis for statistical analysis. But enough are apparent upon comparatively superficial examination to warrant the schemes here employed. These schemes are not an innovation; they have grown up gradually, contributed to from various sources and by various students, and are therefore believed to express somewhere near the facts.

A major grouping of species geographically is by life zones, in accordance with the system advocated by C. Hart Merriam. The ranges of most of the land birds given in the present paper are defined primarily in terms of life

zones, and the extent of these distributional units, as represented within the boundaries of California, is shown roughly on the map, plate I. The cross-sectional profiles given on plate II serve to convey some interesting suggestions as to the effect of altitude and distance from the sea upon the ranges of the various animals severally concerned.

Of lesser rank are faunal and subfaunal areas, using the term "faunal" in a restricted or special sense. These areas, as the writer conceives of them, are naturally subdivisions of life zones, so that each faunal unit consists of a division of *one* life zone. The system of nomenclature for faunal units ought logically to indicate their relationships accordingly; but it does not. As a matter of practical necessity in most cases, divisions of two or even more adjacent zones are lumped together under one faunal name (compare plates I and III).

It is natural to try to find some underlying causative factor to account for the two types of distributional behavior involved in the two schemes, of life zones and faunal areas. Study of the maps, of conditions in the field, and of statements of distribution concerning our birds and other vertebrate animals has forcibly suggested that adjacent zones are demarked from one another by increase or decrease of temperature beyond in each case certain critical points. Thus, in ascending a mountain, such as San Jacinto Peak, while there is little doubt but that there is a uniform gradient in temperature from warm to cold, one is impressed with the fact of zonation,—the existence of belts of life successively passed through, broadly uniform, with narrow intervening bands of blending.

The great topographic diversity in California, together with the presence of the sea with the cool air-currents moving in a prevailing eastward direction from it, are factors which may be readily cited as accounting for the intricate pattern of the life zones as shown on the map of this state. It is not necessary to specify precise temperatures, in degrees, as delimiting zones (and this has not yet been attempted critically by any one for California), in order to comprehend what the writer believes to be true—that temperature is the most important single one of the several factors controlling the ranges of our birds. How this control is exerted upon each species concerned is a problem as yet incompletely solved, but it seemingly has in many cases to do with the period and processes of reproduction.

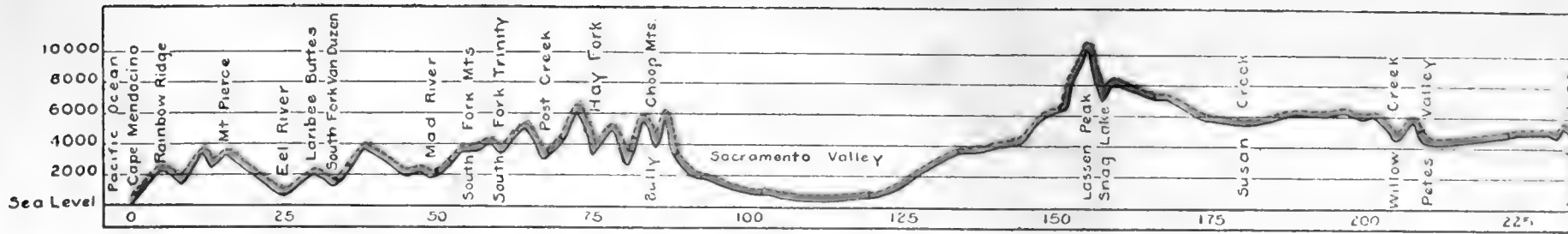
Broadly speaking, we may recognize two main zonal contingents in the vertebrate life of California, Boreal, or northern, and Austral, or southern. Because of the dominance here, in effect upon temperature, of altitude over latitude, we might explain the situation more clearly to the inexperienced by speaking of the animal life of the cool mountains as compared with the animal life of the warm valleys. The contrasted differences are enormous, as even a cursory survey will suffice to show. No close observer will deny that the critical factor here is that of temperature.

By considering the whole of North America we are able to readily justify zonal subdivision a step, and only one step, farther, as indicated in the following brief synopsis of life zones.



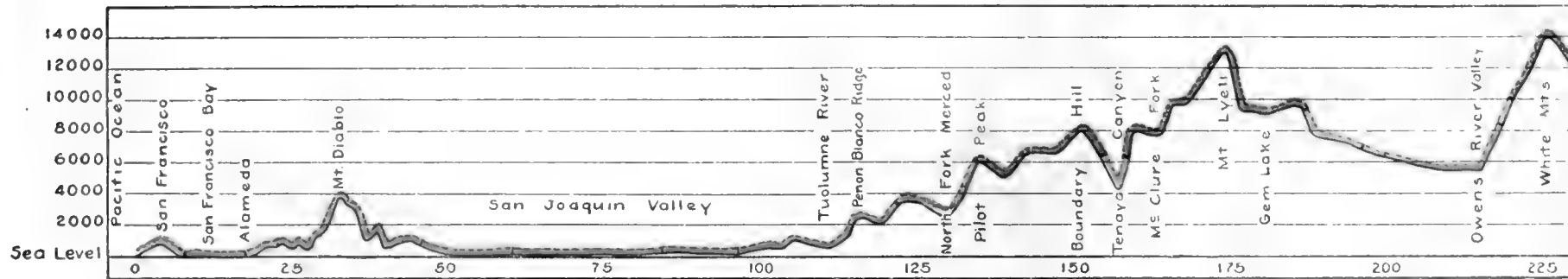




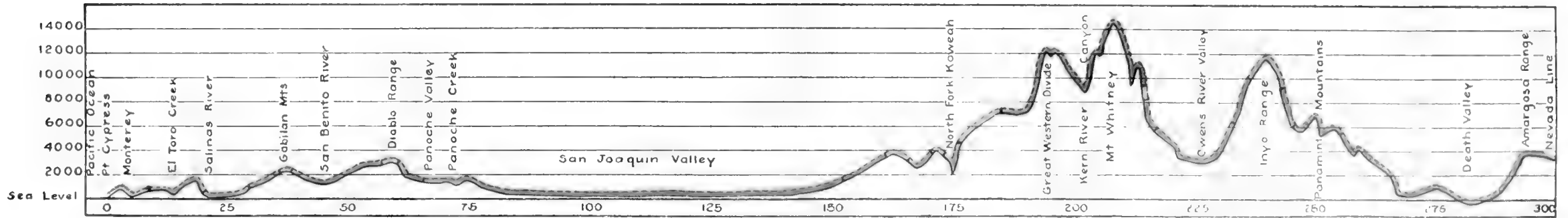


1. Cape Mendocino through Lassen Peak

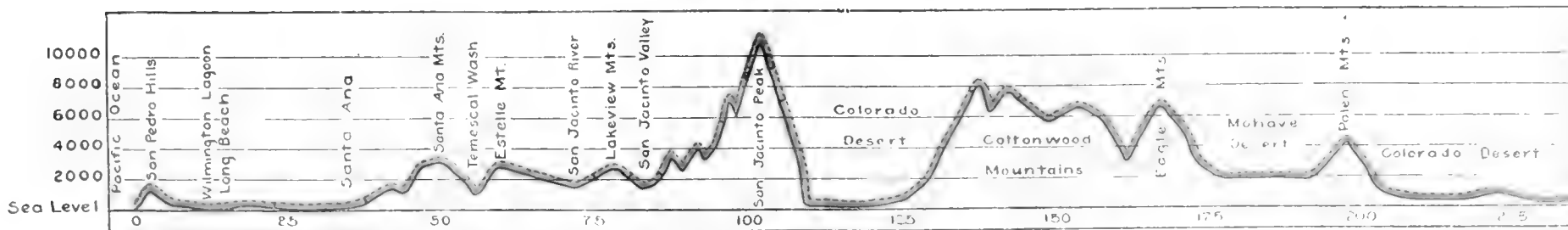
- BOREAL
- TRANSITION
- UPPER SONORAN
- LOWER SONORAN



2. San Francisco through Mount Lyell



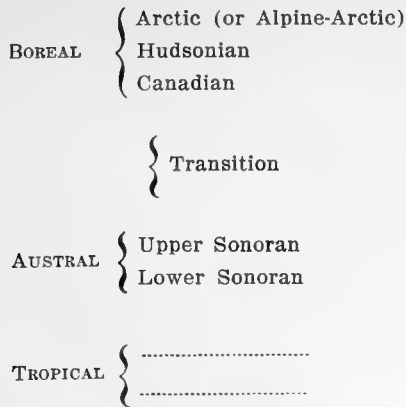
3. Monterey through Mount Whitney



4. San Pedro through San Jacinto Peak

*Prepared at the  
University of California  
Museum of Vertebrate Zoology*





While all of the zones from Lower Sonoran to Alpine-Arctic are represented in California, the accompanying map takes account only of the Lower Sonoran (orange), Upper Sonoran (yellow), and Transition (blue), separately, the three uppermost subdivisions being lumped into one under the major designation Boreal (green). This lumping is advisable for two reasons: (1) the detail on a map of small scale would be too fine for practical portrayal; (2) the three divisions of Boreal are not, in California, as sharply demarked as in a north-and-south section of the continent interiorly, zonation in California in this respect being confused locally through the effects of small area, and factors other than temperature.

Transition is, as the name implies, a zone of overlapping of Boreal and Austral,—where certain types from these opposite categories occur over a definite interval on common ground; and there are also perfectly characteristic breeding species, chiefly if not exclusively among migrant forms, which render this zone easily recognizable.

Turning again to the faunal divisions of California, we find that the factor here involved is undoubtedly humidity of the atmosphere, directly or indirectly. Roughly, the western portion of the United States can be separated into an arid interior province (Great Basin plus southwestern desert tracts), and a humid coastal strip, the latter of increasing width from south to north. In California this line of demarcation appears to lie, approximately, along the crest of the great Sierran divide the whole length of the state, from the Oregon line in the vicinity of Mount Shasta, to the Mexican boundary below, and in line with, the Cuyamaca Mountains. Distance from the ocean, prevailing direction of air currents, and height of intervening elevations of land crossed by these, seem to be the chief conditions modifying the atmospheric humidity of a locality.

The faunal and subfaunal areas here recognized may be classified as follows. The relationship of zones to faunas is also suggested.

| Major<br>Zones | Major<br>Faunal Divisions         | Subfaunal Divisions                 |
|----------------|-----------------------------------|-------------------------------------|
| BOREAL         | HUMID COAST                       | Humboldt Bay } Northern Humid Coast |
|                |                                   | Marin }<br>Santa Cruz }             |
| AUSTRAL        | SIERRAN                           | Trinity                             |
|                |                                   | Sierra Nevadan                      |
|                |                                   | San Bernardino Mountain             |
|                |                                   |                                     |
| AUSTRAL        | CALIFORNIAN                       | Sierra Foothill                     |
|                |                                   | Clear Lake                          |
|                |                                   | Sacramento Valley                   |
|                |                                   | San Joaquin Valley                  |
| AUSTRAL        | GREAT BASIN<br>(OR ARID INTERIOR) | San Francisco Bay                   |
|                |                                   | San Diegan                          |
|                |                                   | Santa Barbara Island                |
|                |                                   |                                     |
|                |                                   | Modoc                               |
|                |                                   | Inyo                                |
|                |                                   | Mohave Desert                       |
|                |                                   | Colorado Desert                     |

Reference to plate III will show that, as with zones, the outlines of the faunal areas in California are very irregular. The limit of subdivision of faunas is not as sharply determined as with zones, and there is here more latitude for the personal element. The boundaries as given are, of course, merely approximate, and the areas themselves will doubtless receive extensive modification on the basis of future, more intensive, geographical study. Still, their recognition as now defined has proven of great use in the attempt to formulate briefly the extent of the ranges of the many species of birds involved.

A third order of distributional behavior, wholly complementary to the other two, has been employed elsewhere in the study of the distribution of California birds,—that by associations (see Grinnell, *Univ. Calif. Publ. Zool.*, XII, 1914, pp. 64, 66, 90). Since this manner of occurrence is mostly local in its application, and since its demonstration with regard to our birds would add very largely to the bulk of the present paper, it has been left almost altogether out of consideration in this connection. The present paper is thus given over to the treatment of species upon the more purely geographical schemes, those of life zones and faunal areas. The fact that birds, in spite of their superior powers of locomotion, are often confined within very narrow ranges of climatic conditions, tends to develop lively interest in this field of ornithological study.

Detailed, critical, and statistical marshalling of the facts of distribution of our many species of birds, through the preparation of annotated tables, fauna by fauna, zone by zone, and association by association, is a piece of work greatly to be desired. Whoever undertakes it, however, will doubtless find his results more significant if birds be handled along with other vertebrate classes. In the meantime, accumulation of a very great deal more of distributional detail is to be hoped for, as regards not only birds, but the other vertebrate groups as well.



PLATE III



## ACKNOWLEDGMENTS

Any undertaking of the nature of the present contribution is necessarily a co-öperative affair. One person working by himself would inevitably fail in considerable measure. The writer is therefore fortunate in being able to acknowledge direct assistance from very many sources. This gives him confidence that the results of his work are more nearly what the present stage of our science demands.

The writer is indebted first of all to Miss Annie M. Alexander, the Founder of the Museum of Vertebrate Zoology of the University of California. This indebtedness has been incurred on two scores: First and primarily, in that since the inauguration of the Museum's activities, in March, 1908, there has been as a result of her generous support of field work a unique accumulation of facts and specimens from which to study bird distribution in this state. It is particularly gratifying to record that this mass of data is on file in a public institution, the property of the state of California, where it is freely accessible to any student of the subject. It is safe to say that seventy-five percent of both the specific facts and general statements recorded in the present paper are capable of verification from the original records and specimens in this institution alone. Secondly, the author is under personal obligation to the same benefactor, who has been in continuous control of the Museum since its inauguration, for allotment of a good share of his time to this, his favorite subject. Without this privilege, and particularly without the active sympathy of Miss Alexander in the all-important field work, no such relatively thorough knowledge would be available at this time.

It is in order, also, to here express deep appreciation of the repeated and important helps given by Messrs. Joseph Mailliard and John W. Mailliard. To be explicit, these gentlemen not only placed at the writer's disposal their finely cared for and extensive private collections, but read and re-read the first drafts of this paper, with the result that many errors were detected and much important information added.

To Professor Harvey M. Hall I am grateful for considerable aid in mapping the life zones of California. Since the zoologist is compelled to make constant use of plants in indicating the ranges of animals, he continually appeals to the botanist. Professor Hall has very similar views to the present author's, as regards the entity of life zones, and he has generously contributed from his own knowledge of the conditions in many parts of California. The zone maps accompanying the present paper owe their approximate accuracy in many places to his critical attention.

Members of the staff of the Museum of Vertebrate Zoology have not only helped conscientiously in whatever function the daily routine demanded, but Mr. Harry S. Swarth, in particular, has proffered numerous corrections and items

of information such as have brought the whole result to a more nearly satisfactory plane of accuracy.

In running down records in literature it has become necessary to carry on considerable correspondence with officials connected with the museums in Washington, D. C. It has proven desirable to verify many of the records made by the early surveys. I have been especially assisted in this way by Mr. Wells W. Cooke, of the Bureau of Biological Survey, who has always been cordial in his response to my very frequent enquiries. In similar ways, I have been freely assisted from time to time by Mr. Henry W. Henshaw, Dr. A. K. Fisher, Mr. Harry C. Oberholser, and Dr. Charles W. Richmond.

One more specific source of information should here be mentioned. In December, 1910, I for the first time had the opportunity of examining Belding's manuscript work on the "Water Birds of the Pacific District", now deposited in the Bancroft Library of the University of California. This is constructed on very much the same lines as the same author's "Land Birds of the Pacific District", published in 1890 as an *Occasional Paper* by the California Academy of Sciences. It consists largely of statements in regard to each species as quoted from various publications of the early writers on California birds. The results of Belding's own personal observations are recorded at length; but many of these, although not so indicated, had already been published by him in various short articles. There remain, however, a good many notes, both of Belding's own, and from certain correspondents of his, which are new. The most important of these are Belding's observations on the ducks and geese of the San Joaquin and Sacramento valleys. Such of all these notes as are clearly authentic, and as are found usable in the present paper, and at the same time have not been previously published, I have credited to "Belding, MS".

It is proper that acknowledgment be made collectively to the host of observers, members of the Cooper Ornithological Club, who have contributed at more or less length to our knowledge of California birds. In his capacity as Editor of *The Condor*, the writer has repeatedly suggested to individuals the desirability of publishing certain important facts communicated by letter or otherwise, and a favorable response has almost invariably been accorded. In the citations for details of specific occurrence in the following lists, full credit is given for practically everything so furnished, and germane to the purpose of the paper.

JOSEPH GRINNELL,

*California Museum of Vertebrate Zoology,*  
*May 1, 1915.*



## THE BIRDS OF CALIFORNIA

1 (1) **Aechmophorus occidentalis** (Lawrence)

## WESTERN GREBE

Synonyms—*Podiceps occidentalis*; *Podiceps clarkii*; *Aechmophorus clarkii*; *Aechmophorus occidentalis clarkii*; Clark Grebe.

Status—Common during fall, winter, and spring along the seacoast, on the bays, and on the larger bodies of water inland throughout the state. Remains through the summer on Buena Vista and Tulare lakes, where it may breed, as it does certainly on Eagle Lake and Tule Lake in the northeastern part of the state (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 190; Sheldon, Condor, ix, 1907, p. 186; V. Bailey, Condor, iv, 1902, p. 64). According to Belding (MS), the species formerly bred in Sutter County and in the vicinity of Stockton, before so much of the tule land was reclaimed. Noted casually through the summer on the ocean near Santa Barbara (Torrey, Condor, xii, 1910, p. 204), and on salt sloughs near San Diego (Belding, MS).

2 (2) **Colymbus holboelli** (Reinhardt)

## HOLBOELL GREBE

Synonyms—*Podicipes holboelli*; *Podiceps cooperi*; *Podiceps cristatus*; Crested Grebe; Red-necked Grebe.

Status—Fairly common as a midwinter visitant along the seacoast. Beek (Condor, ix, 1907, p. 58) found it of regular occurrence in small numbers on Monterey Bay from November to February; also, as observed more recently, remaining until May (Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 58). Other record stations are: San Francisco Bay—Presidio and Oakland (Kobbe, Auk, xviii, 1901, p. 270); Pacific Grove (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 14); Santa Barbara (Heermann, Pac. R. R. Rep., x, 1859, p. 76); Elsinore Lake (Nordhoff, Auk, xix, 1902, p. 212); Lake Tahoe, September 6 (Belding, MS).

3 (3) **Colymbus auritus** Linnaeus

## HORNED GREBE

Synonyms—*Podiceps cornutus*; *Dytes auritus*.

Status—Fairly common as a midwinter visitant along the seacoast; occurs casually inland. Recorded from: Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 190); San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. XLVIII); Monterey Bay (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 14); Los Baños, Merced County (Mus. Vert. Zool.); Santa Barbara (Streator, Orn. & Ool., xi, 1886, p. 90); Alamitos and San Diego bays (Linton, Condor, ix, 1907, p. 110); Lake Tahoe, September (Belding, MS); Hyperion, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 9); Riverside (Heller, Condor, iii, 1901, p. 100); Colorado River (Coues, Proc. Acad. Nat. Sci. Phila., 1866, p. 100). In several instances winter specimens have been recorded under the name *auritus*, and subsequently shown to be *californicus*.

4 (4) **Colymbus nigricollis californicus** (Heermann)

## AMERICAN EARED GREBE

Synonyms—*Podiceps californicus*; *Podiceps auritus californicus*; *Dytes auritus* var. *californicus*; *Dytes nigricollis californicus*; *Podicipes californicus*; *Colymbus nigricollis*; *Colymbus californicus*; *Colymbus auritus*, part; California Grebe.

Status—Breeds commonly on many of the elevated lakes along the east side of the Sierras; also south to Elizabeth Lake, Los Angeles County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 12), Bear Lake, San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 51); San Jacinto Lake, Riverside County (Willett and Jay, Condor, XIII, 1911, p. 157), and casually to Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 85). Winters abundantly on the ocean along our entire coast, and in smaller numbers on various bodies of water inland throughout the state. Noted at Owens Lake up to June (A. K. Fisher, *loc. cit.*). Occurs most widely during the period of dissemination immediately succeeding the breeding season.

5 (6) **Podilymbus podiceps** (Linnaeus)

## PIED-BILLED GREBE

Synonyms—*Podilymbus lineatus*; *Podilymbus carolinensis*; *Podilymbus podiceps*; Lineated Diver; Thick-billed Grebe.

Status—Fairly common breeding species on the smaller bodies of fresh water both east and west of the Sierras; breeds south as far as San Jacinto Lake, Riverside County (Willett and Jay, Condor, XIII, 1911, p. 157), and Escondido, in San Diego County (Sharp, Condor, ix, 1907, p. 86). More generally and abundantly distributed throughout the state as a migrant; small numbers remain through the winter in the San Joaquin-Sacramento basin (several records), on Tomales Bay (J. and J. W. Mailliard, MS), on San Francisco Bay (Belding, MS), and in the San Diegan district (Willett, Pac. Coast Avif. no. 7, 1912, p. 10).

6 (7) **Gavia immer** (Brünnich)

## COMMON LOON

Synonyms—*Gavia imber*; *Urinator imber*; *Colymbus torquatus*; *Colymbus glacialis*; Great Northern Diver.

Status—Common winter visitant to the ocean and bays along the whole length of our coast; also to various bodies of water inland, even to the Colorado River (Mus. Vert. Zool.). Occurs sparingly in summer on elevated lakes in the northern Sierra Nevada: recorded as breeding on certain small lakes near Mount Lassen (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 190), and at Eagle Lake (Henshaw, Rep. Wheeler Surv., 1879, p. 333).

7 (10)

**Gavia pacifica** (Lawrence)

## PACIFIC LOON

Synonyms—*Colymbus pacificus*; *Colymbus arcticus* var. *pacificus*; *Urinator pacificus*; Pacific Diver.

Status—Common winter visitant on the ocean and estuaries along our whole coast (many records); occurs on Humboldt, San Francisco and San Diego bays, but not known from any interior locality.

8 (11)

**Gavia stellata** (Pontoppidan)

## RED-THROATED LOON

Synonyms—*Colymbus septentrionalis*; *Urinator lunme*; Red-throated Diver.

Status—Recorded as a common winter visitant on the ocean and bays at various points along the coast, from Tomales Bay (J. and J. W. Mailliard, MS) to San Diego. Appears to be confined closely to salt water; only two interior records: Fort Crook, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 191), and Sequoia and General Grant National Parks, Tulare County, "rare winter visitant" (Fry, U. S. Dept. Interior, General Information Regarding Sequoia and General Grant National Parks, Season of 1912, p. 7); the latter doubtfully authentic.

9 (12)

**Lunda cirrhata** (Pallas)

## TUFTED PUFFIN

Synonyms—*Mormon cirrhatus*; *Fratercula cirrhata*.

Status—Breeds abundantly on the Farallon Islands; in smaller numbers at Point Reyes (C. A. Allen, Orn. & Ool., vi, 1881, p. 18; J. and J. W. Mailliard, MS), Carmel Bay (Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 211), near Port Harford (Willett, Condor, xi, 1909, p. 186), at San Miguel Island (Streator, Orn. & Ool., xiii, 1888, p. 53; Willett, Condor, xii, 1910, p. 172; H. Wright and G. K. Snyder, Condor, xv, 1913, p. 88), on Anacapa Island (H. Wright and G. K. Snyder, *loc. cit.*), and on Santa Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 22; H. Wright and G. K. Snyder, *loc. cit.*). Not recorded at any season south of San Nicolas Island where of but casual occurrence (Willett, Pac. Coast Avif. no. 7, 1912, p. 10). The species is permanently resident on our waters, though more widely dispersed in winter. In the vicinity of Monterey it has not been observed from February to April (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 59).

10 (14)

**Fratercula corniculata** (Naumann)

## HORNED PUFFIN

Status—Rare winter visitant. One record: specimen taken by H. W. Marsden at Pacific Grove, Monterey County, February 17, 1914 (Bishop, Condor, xvi, 1914, p. 204). The bird was a female in winter plumage and is now no. 26172 of the L. B. Bishop collection.

11 (15) **Cerorhinca monocerata** (Pallas)

## RHINOCEROS AUKLET

Synonyms—*Uria occidentalis*; *Cerorhina occidentalis*; *Cerorhina suckleyi*; *Sagmatorrhina suckleyi*; *Ceratorhyncha monocerata*; Horn-billed Guillemot; Horn-billed Auk.

Status—Common mid-winter visitant on the ocean off our seacoast, at least from the vicinity of the Farallones to San Diego (many records). Said to have formerly bred on the Farallon Islands (Heermann, Pac. R. R. Rep., x, 1859, p. 75).

12 (16) **Ptychoramphus aleuticus** (Pallas)

## CASSIN AUKLET

Synonyms—*Mergulus cassini*; Aleutian Auk.

Status—Common resident on the ocean off our whole seacoast. Breeds abundantly on the Farallones; also on Santa Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 22), Santa Cruz Island (Beck, Bull. Cooper Orn. Club, I, 1899, p. 85), and at San Miguel Island (Streator, Orn. & Ool., XIII, 1888, p. 54; Willett, Condor, XII, 1910, p. 172; H. Wright and G. K. Snyder, Condor, xv, 1913, p. 89). Recorded also as breeding on islets along coast of Humboldt County (Clay, Condor, xv, 1913, p. 93).

13 (17) **Phaleris psittacula** (Pallas)

## PAROQUET AUKLET

Synonyms—*Cyclorrhynchus psittaculus*; *Simorhynchus psittaculus*.

Status—Rather rare midwinter visitant along our central and northern seacoast: San Francisco Bay, December and January, 5 specimens (Loomis, Auk, XVIII, 1901, p. 104); Monterey Bay, January, 3 specimens (Beck, Condor, IX, 1907, p. 58); off Point Pinos, near Monterey, January, 14 specimens (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 59); Eureka, Humboldt County, February 7, 1 specimen (Clay, Condor, XIV, 1912, p. 196).

14 (21) **Synthliboramphus antiquus** (Gmelin)

## ANCIENT MURRELET

Status—Fairly common midwinter visitant on the ocean coastwise: Pacific Beach, San Diego County (Bishop, Condor, VII, 1905, p. 141); San Pedro (H. Wright, Condor, XI, 1909, p. 65); Terminal Island and Hyperion, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 11); Santa Catalina Island (Osburn, Condor, XIII, 1911, p. 76); San Clemente Island (Linton, Condor, XI, 1909, p. 193); Santa Cruz Island (Linton, Condor, X, 1908, p. 128); off Monterey and Monterey Bay (Stejneger, Proc. U. S. Nat. Mus., IX, 1886, p. 524; Loomis, Proc. Calif. Acad. Sci., 2nd ser., VI, 1896, p. 17; J. Mailliard, Auk, XV, 1898, p. 197; Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 59; Mus. Vert. Zool., many specimens, December 1 to March 17); San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlvi; Littlejohn, Condor, XIV, 1912, p. 41).

15 (23) **Brachyramphus marmoratus** (Gmelin)

## MARBLED MURRELET

Synonym—Marbled Guillemot.

Status—Fairly common winter visitant on the ocean coastwise: off Monterey (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 19; Mus. Vert. Zool., many specimens, August 31 to April 4); Santa Cruz (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 12); San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlviii; J. and J. W. Mailliard, MS); Santa Barbara (Streator, Orn. & Ool., xi, 1886, p. 90). Has also been found in June and July on Monterey Bay (J. Mailliard, Condor, vi, 1904, p. 15).

16 (25) **Brachyramphus hypoleucus** Xantus

## XANTUS MURRELET

Synonyms—*Micruria hypoleuca*; Xantus Guillemot.

Status—Fairly common resident on the ocean along our southern coast and among the Santa Barbara Islands. Recorded as far north as Monterey Bay regularly (Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 211; J. Mailliard, Auk, xv, 1898, p. 197; Beek, Condor, ix, 1907, p. 58; Beek, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 60). Found breeding on Santa Barbara Island (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 12; H. Wright and G. K. Snyder, Condor, xv, 1913, p. 89), and on Anacapa Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 12; H. Wright and G. K. Snyder, *loc. cit.*).

17 (29) **Cepphus columba** Pallas

## PIGEON GUILLEMOT

Synonyms—*Uria columba*; Western Guillemot; Black Guillemot.

Status—Common in summer along our central seacoast. Breeds at many points both on the mainland coast and on the islands, from Point Reyes (C. A. Allen, Orn. & Ool., vi, 1881, p. 18; J. and J. W. Mailliard, MS) and the Farallones, south to the Santa Barbara Islands (many records). Occasional on San Francisco Bay. Noted but sparingly in winter. Southernmost record at any season: San Clemente Island (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79).

18 (30a) **Uria troille californica** (H. Bryant)

## CALIFORNIA MURRE

Synonyms—*Uria troille*; *Uria lomvia*; *Uria ringvia*; *Catarractes californicus*; *Uria californica*; *Uria lomvia arra*; *Lomvia troille californica*; *Lomvia troille*; *Lomvia californica*; *Uria brunnichi*; *Uria lomvia* var. *californica*; Large-billed Guillemot; California Guillemot.

Status—Common resident on the open ocean. Breeds abundantly on the Farallon Islands; in smaller numbers at San Miguel Island (Willett, Condor, xii, 1910, p. 172; H. Wright and G. K. Snyder, Condor, xv, 1913, p. 89), at Point Reyes, Marin County (J. and J. W. Mailliard, MS), and, formerly at least, at



23 (40a) **Rissa tridactyla pollicaris** Ridgway

## PACIFIC KITTIWAKE

Synonyms—*Rissa kotzebuci*; *Rissa tridactyla kotzebuci*; *Rissa pollicaris*; *Rissa tridactyla*; Kittiwake Gull.

Status—Winter visitant on the ocean and coastwise, irregularly common; casual inland. Recorded as follows: off San Diego (Anthony, Auk, xv, 1898, p. 267); Alamitos Bay, Los Angeles County (Linton, Condor, ix, 1907, p. 199); Long Beach (Linton, Condor, x, 1908, p. 238); Playa del Rey, Los Angeles County (J. Grinnell, Condor, viii, 1906, p. 57); Paso Robles, San Luis Obispo County (Thompson, Condor, iii, 1901, p. 187); Monterey (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 21); off Point Pinos (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 62); San Francisco Bay (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 10); Nicasio, Marin County (Southwick and Jencks, Auk, ii, 1885, p. 313).

24 (42) **Larus hyperboreus** Gunnerus

## GLAUCOUS GULL

Synonyms—*Larus glaucus*; *Larus hutchinsi*; Burgomaster.

Status—Rare winter visitant along the seacoast: Farallones and San Francisco Bay (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 9); off Monterey (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 22; *ibid.*, 3rd ser., zool., ii, 1900, p. 357; Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 62); Monterey Bay, one specimen, February 16, 1911 (no. 17932, Mus. Vert. Zool.).

25 (44) **Larus glaucescens** Naumann

## GLAUCOUS-WINGED GULL

Status—Common winter visitant along our whole seacoast, being recorded south to San Diego. Notably numerous on San Francisco and Monterey bays. No record away from salt water.

26 (49) **Larus occidentalis** Audubon

## WESTERN GULL

Synonym—*Larus argentatus* var. *occidentalis*.

Status—Abundant resident along the whole seacoast; common at all seasons on San Francisco and San Diego bays. Breeds on the Farallon Islands, on all of the Santa Barbara Islands, at Point Reyes (C. A. Allen, Orn. & Ool., vi, 1881, p. 18), and at Point Carmel (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 62). Occurs casually inland: Elsinore Lake, Riverside County (Nordhoff, Auk, xix, 1902, p. 212); 100 miles up Sacramento River (Newberry, Pac. R. R. Rep., vi, 1857, p. 105.).

27 (51) **Larus argentatus** Pontoppidan

## HERRING GULL

Synonyms—*Larus smithsonianus*; *Larus argentatus smithsonianus*; *Larus vegae*; *Larus cachinnans*; Pallas Herring Gull; Vega Gull.

Status—Common winter visitant along our whole seacoast. Notably numerous on San Francisco Bay. Casual inland: Los Angeles (Swarth, Condor, II, 1900, p. 14).

**28 (53)                                    *Larus californicus* Lawrence**

CALIFORNIA GULL

Status—Common winter visitant in suitable localities throughout the state; occurs along the whole seacoast, on all the large interior lakes from which we have records of any water birds at all, and along the larger streams. Occurs most widely at the period of dissemination in late summer. Breeds at Eagle Lake, Lassen County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 191), and occurs in summer also on other lakes of northeastern California, from Lake Tahoe northward.

**29 (54)                                    *Larus delawarensis* Ord**

RING-BILLED GULL

Status—Common winter visitant coastwise from Tomales Bay (J. and J. W. Mailliard, MS) and San Francisco Bay southward (many records); occurs inland in migration: Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 14); Lake Tahoe (Henshaw, Rep. Wheeler Surv., 1877, p. 1322); Summit Lake, near Mt. Lassen (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 192); Ivanpah, San Bernardino County (Hollister, Auk, xxv, 1908, p. 457); Salton Sea (J. Grinnell, Condor, x, 1908, p. 186). According to Bishop (Condor, XII, 1910, p. 174) certain records of "*Larus canus*" may belong here.

**30 (55)                                    *Larus brachyrhynchus* Richardson**

SHORT-BILLED GULL

Synonyms—*Larus canus*; *Larus canus* var. *brachyrhynchus*; Mew Gull.

Status—Fairly common winter visitant coastwise on salt water. Recorded as follows: Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 192); San Francisco Bay (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 10); Monterey Bay (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 24; Beek, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 63); Santa Barbara to San Diego (Henshaw, Auk, II, 1885, p. 232); Ventura (Evermann, Auk, III, 1886, p. 88); San Diego, etc. (Saunders, Cat. Bds. British Mus., xxv, 1896, p. 283).

**31 (57)                                    *Larus heermanni* Cassin**

HEERMANN GULL

Synonyms—*Blasipus heermanni*; *Blasipus belcheri*; White-headed Gull.

Status—Common at all seasons along our seacoast, at least as far north as San Francisco Bay (many records); most numerous in winter. In only one instance straying away from salt water: Sacramento River at confluence with Feather River (Newberry, Pac. R. R. Rep., vi, 1857, p. 105). No authentic record of breeding north of the Mexican boundary.



**32 (59)                      *Larus franklini* Richardson**

## FRANKLIN GULL

Status—Rare winter visitant to the seacoast off southern California. Three specimens taken at Hyperion, Los Angeles County, November 22, 1913, October 17, 1914, and November 24, 1914: nos. 1500, 2350, and 2587, respectively, of the Law collection (Law, Condor, xvii, 1915, p. 96).

**33 (60)                      *Larus philadelphia* (Ord)**

## BONAPARTE GULL

Synonym—*Chroicocephalus philadelphia*.

Status—Common migrant along the seacoast (many records); occasional migrant through the interior: near Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 14); Pajaro Valley, Monterey County (Chalker, Zoe, iv, 1893, p. 225); Colorado River (Coues, Ibis, 2nd ser., ii, 1866, p. 263); Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 33). Winters regularly along our southern seacoast from Monterey Bay southward (Mus. Vert. Zool.), occasionally on San Francisco Bay.

**34 (62)                      *Xema sabini* (Sabine)**

## SABINE GULL

Synonyms—*Larus sabini*; Fork-tailed Gull.

Status—Fairly common spring and fall migrant on the ocean: Monterey Bay (Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 215; *ibid.*, 3rd ser., zool., ii, 1900, p. 358; Beck, Condor, ix, 1907, p. 58; Breninger, Auk, xx, 1903, p. 433; Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 63); San Francisco Bay (W. E. Bryant, Zoe, iii, 1892, p. 165); Santa Cruz Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 15); Santa Barbara Channel, ten miles from Santa Cruz Island (H. Wright, Condor, xv, 1913, p. 227). One instance of occurrence in the interior: Mono Lake, September (W. K. Fisher, Condor, iv, 1902, p. 10).

**35 (64)                      *Sterna caspia* Pallas**

## CASPIAN TERN

Synonyms—*Sterna tschegrava*; *Sterna regia*, part; *Hydroprogne caspia*.

Status—Rather rare winter visitant and migrant both coastwise and in the interior: Stockton and San Francisco (Ridgway, Bull. Nutt. Orn. Club, vi, 1881, p. 124); San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlix); Los Baños, Merced County (Mus. Vert. Zool.); Fresno district (Tyler, MS); Buena Vista Lake, Kern County (Linton, Condor, x, 1908, p. 196); Alamitos Bay, Los Angeles County (Linton, Condor, xi, 1909, p. 68); Salton Sea (J. Grinnell, Condor, x, 1908, p. 186); Cane Spring, Imperial County (Mus. Vert. Zool.); San Diego (Saunders, Cat. Bds. British Mus., xxv, 1896, p. 32).

**36 (65)                      *Sterna maxima* Boddaert**

## ROYAL TERN

Synonyms—*Sterna regia*, part; *Thalasseus regius*; *Sterna cayanensis*: Cayenne Tern.

Status—Varyingly common at any season along the ocean coast from San Francisco Bay southward (many records). Not known from north of Tomales Bay (J. and J. W. Mailliard, MS). One interior record: Elsinore Lake, Riverside County (Nordhoff, Auk, XIX, 1902, p. 213). Said to have been found breeding on San Miguel Island (Henshaw, Rep. Wheeler Surv., 1876, p. 277).

**37 (66)                      *Sterna elegans* Gambel**

## ELEGANT TERN

Synonyms—*Thalasseus elegans*; *Sterna galericulata*.

Status—Rather rare and irregular summer and fall visitant along our sea-coast southerly: San Francisco Bay (J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1868, p. 10); Monterey (Loomis, Proc. Calif. Acad. Sci., 3rd ser., zool., II, 1900, p. 319); Monterey Bay (specimen in Mus. Vert. Zool.); Pacific Beach, San Diego County (Bishop, Condor, VII, 1905, p. 141); San Diego (Belding, MS).

**38 (69)                      *Sterna forsteri* Nuttall**

## FORSTER TERN

Status—Common summer visitant and migrant interiorly (many records): definitely recorded as breeding at Eagle Lake (Townsend, Proc. U. S. Nat. Mus., X, 1887, p. 192; Sheldon, Condor, IX, 1907, p. 186), Lake Tahoe (Ray, Osprey, V, 1901, p. 116), in Sacramento Valley (Baird, Brewer and Ridgway, Water Bds. N. Amer., II, 1884, p. 292), and, not so surely, at Elsinore Lake, Riverside County (Heller, Condor, III, 1901, p. 100). Common migrant coastwise. Winters sparingly on the coast of the San Diegan district, in rare cases north as far as Stockton and Santa Cruz (Belding, MS).

**39 (70)                      *Sterna hirundo* Linnaeus**

## COMMON TERN

Status—Fairly common migrant coastwise: Pacific Beach, San Diego County, September (Bishop, Condor, VII, 1905, p. 141); Alamitos Bay, Los Angeles County, September (Willett, Condor, X, 1908, p. 50); Hyperion Beach, Los Angeles County, May (Willett, Condor, XII, 1910, p. 174; L. H. Miller, Condor, XVI, 1914, p. 40); Santa Barbara (Willett, Pac. Coast Avif. no. 7, 1912, p. 16); off Point Pinos, Monterey County, April and May, August to October (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 64). One winter record: San Francisco, January (Littlejohn, Condor, V, 1903, p. 81).

**40 (71)                      *Sterna paradisaea* Brünnich**

## ARCTIC TERN

Synonyms—*Sterna pikei*; *Sterna macrura*; Slender-billed Tern.

Status—Fairly common fall migrant coastwise: off Monterey, August

(Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 215); off Point Pinos, Monterey County, August and September (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 64); Monterey Bay, August 4 to September 14, many specimens (Mus. Vert. Zool.).

**41 (74)                      *Sterna antillarum* (Lesson)**

LEAST TERN

Synonym—*Sterna superciliaris* var. *antillarum*.

Status—Common summer visitant locally coastwise; breeding colonies recorded as follows: San Diego (Kelsey, Condor, IV, 1902, p. 144); Newport Beach, Terminal Island, and Ballona Beach (J. Grinnell, Bds. Los Angeles Co., 1898, p. 8); Bolsa Beach (W. L. Chambers, Condor, x, 1908, p. 237); Hueneme, Ventura County (Willett, Condor, XII, 1910, p. 173); mouth of Salinas River, on Monterey Bay (Beck, Condor, IX, 1907, p. 58); Moss, Monterey Bay (Mus. Vert. Zool.). The latter is the northernmost locality of occurrence.

**42 (77)                      *Hydrochelidon nigra surinamensis* (Gmelin)**

BLACK TERN

Synonyms—*Sterna nigra*; *Hydrochelidon nigra*; *Hydrochelidon plumbea*; *Hydrochelidon fissipes*; *Hydrochelidon lariformis*; *Hydrochelidon surinamensis*.

Status—Common summer visitant to fresh water lakes and marshes interiorly and northerly. Recorded as breeding at nearly all lakes northeast of the Sierras, and south to Lake Tahoe; also at many points in the San Joaquin and Sacramento valleys. The southernmost recorded breeding point is Elsinore Lake, Riverside County (Heller, Condor, III, 1901, p. 100). Occurs rarely on the seacoast during migration: off Point Pinos (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 64); Monterey Bay, August 2 to September 23 (Mus. Vert. Zool.)

**43 (81)                      *Diomedea nigripes* Audubon**

BLACK-FOOTED ALBATROSS

Synonyms—*Diomedea fuliginosa*; *Phoebetria fuliginosa*, part; *Diomedea chinensis*; Brown Gooney; Sooty Albatross, part.

Status—Occurs irregularly on the open ocean off the whole coast; at times common, apparently irrespective of season.

**44 (82)                      *Diomedea albatrus* Pallas**

SHORT-TAILED ALBATROSS

Synonym—*Diomedea brachyura*.

Status—Fairly common at all seasons on the open ocean off our whole coast (many records). Has occurred on San Diego Bay (J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1868, p. 11), Monterey Bay (J. G. Cooper, Amer. Nat., IV, 1871, p. 758), and San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlix).

**45 (86b) Fulmarus glacialis glupischa Stejneger**

## PACIFIC FULMAR

Synonyms—*Fulmarus glacialis*, part; *Fulmarus glupischa*; *Fulmarus pacificus*.

Status—Common winter visitant on the ocean off our central and southern seacoast (many records). Has occurred casually on San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlix; Littlejohn, Condor, xiv, 1912, p. 41).

**46 (86.1) Fulmarus rodgersi Cassin**

## RODGERS FULMAR

Synonyms—*Fulmarus glacialis*, part; *Fulmarus glacialis rodgersi*; *Fulmarus glacialis columba*.

Status—Irregular winter visitant on the ocean in company with *F. glacialis glupischa*. The relationship of the latter with *F. rodgersi* has not been satisfactorily worked out; but there seems to me little doubt but that the two are distinct, for they occupy separate breeding areas in the north (see Stejneger, bull. 29, U. S. Nat. Mus., 1885, p. 91).

**47 (102) Daption capense (Linnaeus)**

## PINTADO PETREL

Synonyms—*Procellaria capensis*; Cape Pigeon.

Status—Rare visitant; but one record: taken off Monterey previous to 1853 (G. N. Lawrence, Ann. Lyc. Nat. Hist. New York, 1853, p. 6). According to Beck (Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 65), the specimen upon which the above record was based is still extant, being in the American Museum of Natural History.

**48 (91) Puffinus creatopus Coues**

## PINK-FOOTED SHEARWATER

Status—Common summer and fall visitant on the ocean off our central and southern seacoast (many records). Not recorded north of the vicinity of the Farallones (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 11). Of casual occurrence on San Francisco Bay (Emerson, Condor, ix, 1907, p. 60). Occurs off Point Pinos, Monterey County, from February to November (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 65).

**49 (93) Puffinus opisthomelas Coues**

## BLACK-VENTED SHEARWATER

Synonym—*Puffinus gavia*.

Status—Common visitant on the ocean off our southern seacoast almost throughout the year (many records); at times abundant. Recorded north as far as Santa Cruz (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 87). Said to have been found breeding on Santa Barbara Island (Anthony, Auk, XIII, 1896, p. 223), but the evidence is inconclusive.

**50 (95) Puffinus griseus (Gmelin)**

## DARK-BODIED SHEARWATER

Synonyms—*Nectris fuliginosus*; *Puffinus fuliginosus*; *Puffinus stricklandi*; Sooty Shearwater.

Status—Abundant summer visitant on the open ocean along our whole coast (many records). Has been observed at times in numbers on San Francisco Bay (J. and J. W. Mailliard, MS). Occasional off Monterey through the winter (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 27; Mus. Vert. Zool.).

**51 (95.1) Puffinus carneipes Gould**

## FLESH-FOOTED SHEARWATER

Synonym—Pale-footed Shearwater.

Status—Rare but apparently regular summer visitant on the open ocean off Monterey Bay: ten specimens secured, February to November of different years (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 66); four additional specimens from the same locality are in Mus. Vert. Zool. (nos. 18687-18690), taken by Beck September 7, 23, and November 1, 1910.

**52 (96) Puffinus tenuirostris (Temminck)**

## SLENDER-BILLED SHEARWATER

Status—Fairly common winter visitant on the open ocean: off Monterey, October to January (Loomis, Proc. Calif. Acad. Sci., 2nd ser., vi, 1896, p. 28; J. Mailliard, Auk, xv, 1898, p. 197; Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 65); Monterey Bay, April 10, and October 13 to December 31 (Mus. Vert. Zool.); Hyperion Beach, Los Angeles County, November 22 (L. H. Miller, Condor, xvi, 1914, p. 41); off San Diego, January (Anthony, Auk, xiii, 1896, p. 171).

**53 (96.2) Puffinus bulleri Salvin**

## NEW ZEALAND SHEARWATER

Synonym—Buller Shearwater.

Status—Rare but apparently regular fall visitant on the open ocean off Monterey. Eleven specimens secured in that vicinity (Loomis, Proc. Calif. Acad. Sci., 3rd ser., zool., ii, 1900, p. 319; Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 66); five additional specimens in Mus. Vert. Zool. (nos. 18682-18686), taken by Beck on Monterey Bay September 14 and 26, and October 13, 1910.

**54 (97) Puffinus cinereus (Gmelin)**

## BLACK-TAILED SHEARWATER

Synonyms—*Procellaria haesitata*; *Adamastor cinereus*; *Puffinus melanurus*; *Puffinus cinereus*.

Status—Rare or casual visitant; but one record: specimen obtained off Monterey (G. N. Lawrence, Ann. Lye. Nat. Hist. New York, vi, 1853, p. 5; see also

Baird, Brewer and Ridgway, Water Bds. N. Amer., II, 1884, p. 375). According to Beck (Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 66), the specimen is still extant, being in the American Museum of Natural History.

**55 (105) Oceanodroma furcata (Gmelin)**

FORK-TAILED PETREL

Status—Irregular, late summer, fall and winter visitant on the ocean north-erly: Humboldt Bay (T. S. Palmer, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 88); Monterey Bay (Loomis, Proc. Calif. Acad. Sci., 2nd ser., VI, 1896, p. 28; Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 66); San Pedro (J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1868, p. 10). The specimen upon which the latter, our southernmost, record rests is in Mus. Vert. Zool. (no. 4470).

**56 (105.2) Oceanodroma kaedingi Anthony**

KAEDING PETREL

Synonyms—*Oceanodroma leucorhoa*; *Cymochorea leucorhoa*; *Oceanites oceanicus*, part; *Thalassidroma leachi*; *Oceanodroma beldingi*; Leach Petrel; Belding Petrel.

Status—Fairly common resident on the ocean along our whole seacoast; many records under different names. There may be two or more forms included here, but the status of this group of petrels is not satisfactorily worked out. Recorded as breeding on the coast of Mendocino County (Dall, Proc. Calif. Acad. Sci., V, 1874, p. 278), and on the Farallon Islands (Loomis, Proc. Calif. Acad. Sci., 2nd ser., VI, 1896, p. 359); also breeds on a small island near Trinidad, Humboldt County (Mus. Vert. Zool.).

**57 (108.1) Oceanodroma socorroensis Townsend**

SOCORRO PETREL

Status—Fairly common in summer on the ocean off San Diego (Anthony, Auk, XII, 1895, p. 387). Breeds regularly on Los Coronados Islands but a few miles south of the Mexican boundary.

**58 (108) Oceanodroma homochroa (Coues)**

ASHY PETREL

Synonyms—*Cymochorea homochroa*; Coues Petrel.

Status—Fairly common summer visitant off central California. Breeds commonly on the Farallon Islands (many records); also one breeding record for San Miguel Island (Henshaw, Rep. Wheeler Surv., 1876, p. 277), and two for Santa Cruz Island (H. Wright and G. K. Snyder, Condor, XV, 1913, pp. 88, 89; H. Wright, Condor, XV, 1913, p. 229). There are two specimens in Mus. Vert. Zool. (nos. 6167, 6168) secured by L. H. Miller at sea near San Clemente Island, April 8, 1904, and near Santa Barbara Island, April 10, 1904, respectively. Not recorded south of the latter points, nor north of the Farallones save for a bird picked up dead on a beach near Point Reyes (J. and J. W. Mailliard, MS). Casual in November on San Francisco Bay near Redwood City (Littlejohn,

Condor, xiv, 1912, p. 41). Latest seasonal occurrence, November 4, off Point Pinos, Monterey County (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 67).

59 (107)                    **Oceanodroma melania** (Bonaparte)

BLACK PETREL

Synonyms—*Procellaria melania*; *Thalassidroma melania*; *Cymochorea melania*; *Oceanodroma townsendi*; Black Stormy Petrel.

Status—Common in summer off our southern seacoast and around the Santa Barbara Islands (many records). Recorded north regularly to vicinity of Monterey Bay (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 67). Northernmost station: near San Francisco (Brewster, Bull. Mus. Comp. Zool., xli, 1902, p. 32).

60 (109)                    **Oceanites oceanicus** (Kuhl)

WILSON PETREL

Status—Rare or casual visitant; one instance: male specimen in Mus. Vert. Zool. (no 18742), taken by R. H. Beck on Monterey Bay, August 24, 1910. Not previously reported from the north Pacific Ocean.

61 (118)                    **Anhinga anhinga** (Linnaeus)

WATER-TURKEY

Synonym—Darter.

Status—One living individual scrutinized by Allan Brooks February 9, 1913, at Potholes, on the California side of the lower Colorado River, Imperial County (Brooks, Condor, xv, 1913, p. 182). Probably of fairly regular occurrence in that locality, as it has been reported before from the Arizona side of the Colorado River below Yuma.

62 (120e)                  **Phalacrocorax auritus albociliatus** Ridgway

FARALLON CORMORANT

Synonyms—*Phalacrocorax dilophus*; *Phalacrocorax auritus*; *Phalacrocorax dilophus cincinatus*; *Phalacrocorax dilophus albociliatus*; *Phalacrocorax townsendi*; *Graculus dilophus*; *Carbo dilophus*; *Carbo townsendi*; *Phalacrocorax auritus cincinatus*; White-crested Cormorant; Double-crested Cormorant; Townsend Cormorant; Lesser White-tufted Cormorant.

Status—Common resident both along the seacoast and on the larger bodies of water inland. A limited migration certainly occurs inland, for especially in spring cormorants appear casually at many scattered localities far from suitable feeding and nesting grounds. Breeds interiorly as follows: Eagle Lake, Lassen County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 192); Clear Lake, Lake County (C. Chamberlin, Nidologist, iii, 1895, p. 29); Buena Vista Lake, Kern County (Linton, Condor, x, 1908, p. 196; Lamb and Howell, Condor, xv, 1913, p. 116); Tulare Lake (Goldman, Condor, x, 1908, p. 201); Salton Sea (J. Grinnell, Condor, x, 1908, p. 186). Seacoast breeding stations are: Farallon Islands (many records); San Miguel Island (Willett, Condor, xii, 1910, p. 173); Santa

Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 25); Santa Catalina Island (J. Grinnell, Bds. Los Angeles Co., 1898, p. 9).

**63 (122)                    *Phalacrocorax penicillatus* (Brandt)**

BRANDT CORMORANT

Synonyms—*Carbo penicillatus*; *Graculus penicillatus*.

Status—Abundant resident along our whole seacoast and upon the bays; but in no case has it occurred on fresh water. Breeding stations are as follows: islets near mouth of Russian River, Sonoma County (J. and J. W. Mailliard, MS); Point Reyes (C. A. Allen, Orn. & Ool., vi, 1881, p. 18); Farallon Islands (many records); near Santa Cruz (Skirm, Orn. & Ool., ix, 1884, p. 150); Point Carmel and Seal Rocks, near Monterey (several records); Port Harford, San Luis Obispo County (Willett, Condor, xi, 1909, p. 186); San Miguel Island (Willett, Condor, xii, 1910, p. 173); Santa Cruz Island (Blake, Auk, iv, 1887, p. 329); Santa Barbara and San Nicolas islands (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 25); San Clemente Island (Linton, Condor, x, 1908, p. 82).

**64 (123b)                *Phalacrocorax pelagicus resplendens* Audubon**

BAIRD CORMORANT

Synonyms—*Phalacrocorax pelagicus*; *Phalacrocorax resplendens*; *Phalacrocorax violaceus*; *Phalacrocorax violaceus resplendens*; *Phalacrocorax pelagicus robustus*; *Graculus violaceus*; *Graculus bairdi*; *Graculus violaceus* var. *bairdi*; Violet-green Cormorant.

Status—Fairly common resident along the exposed seacoast. Occurs sparingly on the bays, but not at all inland. Breeding stations are as follows: Point Reyes (C. A. Allen, Orn. & Ool., vi, 1881, p. 18); Farallon Islands (many records); near Santa Cruz (Skirm, Orn. & Ool., ix, 1884, p. 150); Point Carmel, below Monterey (Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 221); Port Harford, San Luis Obispo County (Willett, Condor, xi, 1909, p. 186); San Miguel Island (Willett, Condor, xii, 1910, p. 173); Santa Cruz Island (Henshaw, Rep. Wheeler Surv., 1876, p. 276); Santa Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 26).

**65 (125)                    *Pelecanus erythrorhynchos* Gmelin**

WHITE PELICAN

Synonyms—*Pelecanus americanus*; *Pelecanus molinae*; *Pelecanus trachyrhynchus*; Rough-billed Pelican; American Pelican.

Status—Common resident interiorly and southerly. Recorded most widely during migration, even to the seacoast, as on Tomales and San Francisco bays (J. and J. W. Mailliard, MS). Probably absent from the more northern interior localities in winter. Breeding stations are as follows: Eagle Lake, Lassen County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 192); Tule Lake, near Oregon line (Finley, Condor, ix, 1907, p. 35); Sacramento Valley (Heermann, Pac. R. R. Rep., x, 1859, p. 72); Tulare Lake (Goldman, Condor, x, 1908, p. 201); Buena Vista Lake (Linton, Condor, x, 1908, p. 196; Lamb and Howell, Condor, xv, 1913, p. 116); Salton Sea (J. Grinnell, Condor, x, 1908, p. 187).



66 (127)

**Pelecanus californicus** Ridgway

## CALIFORNIA BROWN PELICAN

Synonyms—*Pelecanus fuscus*; Gray Pelican; Brown Pelican.

Status—Varyingly common throughout the year along our whole seacoast; least so, and more locally restricted, in spring. Occurs on the bays, but not often away from salt water; one interior record: Rancho Dos Rios, Stanislaus County, three individuals, September 19, 1913 (J. Mailliard, Condor, xv, 1913, p. 228). Breeds chiefly south of our limits, but colonies have lately been ascertained to breed at Anacapa and San Miguel islands (Willett, Condor, xii, 1910, pp. 171, 173), on Santa Cruz Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 21), and on Santa Barbara Island (Willett, *loc. cit.*; H. Wright and G. K. Snyder, Condor, xv, 1913, p. 90).

67 (128)

**Fregata aquila** (Linnaeus)

## MAN-O'-WAR-BIRD

Synonyms—*Tachypetes aquilus*; Frigate Pelican.

Status—Rare and irregular visitant coastwise; casual in the interior; seems to come irrespectively of season. Record stations are as follows: Farallon Islands (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 12); Catalina Island (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1870, pp. 69, 79); San Diego and San Francisco (Baird, Brewer, and Ridgway, Water Bds. N. Amer., ii, 1884, p. 130); Humboldt Bay (T. S. Palmer, Proc. Calif. Acad. Sci., 2nd ser., ii, 1889, p. 88); Pasadena (R. H. Lawrence, Auk, x, 1893, p. 362); Santa Clara (Ogilvie-Grant, Cat. Bds. British Mus., xxvi, 1898, p. 443); Long Beach, Santa Monica and Los Angeles (J. Grinnell, Bds. Los Angeles Co., 1898, p. 10); San Pablo Bay (Gifford, Auk, xxii, 1905, p. 408); Long Beach (Linton, Condor, xiii, 1911, p. 168); Santa Barbara (Dawson, Condor, xiv, 1912, p. 223); Hueneme, Ventura County, and Alamitos Bay, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, pp. 21, 22).

68 (129)

**Mergus americanus** Cassin

## AMERICAN MERGANSER

Synonyms—*Mergus merganser americanus*; *Merganser americanus*; Fish Duck, part; Sawbill, part; Goosander; Sheldrake.

Status—Fairly common winter visitant coastwise and to interior valleys: Los Baños, Merced County (Mus. Vert. Zool.); Alamitos Bay, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 10); Long Beach, Redondo, and Los Angeles (Willett, Pac. Coast Avif. no. 7, 1912, p. 22); Elsinore Lake, Riverside County (Nordhoff, Auk, xix, 1902, p. 213); San Diego (Belding, MS); and other indefinite records. Recorded as summering about lakes and along streams in the Sierra Nevada region: Lake Tahoe (Belding, MS; Law, Condor, xiv, 1912, p. 41); lower McCloud River and Eagle Lake (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 193; Sheldon, Condor, ix, 1907, p. 186); Kern River Lakes, Tulare County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 15).

69 (130)

**Mergus serrator** Linnaeus

RED-BREASTED MERGANSER

Synonyms—*Merganser serrator*; Fish Duck, part; Sawbill, part; Red-breasted Sheldrake.

Status—Common winter visitant along the entire seacoast, occurring both on the open ocean about rocky headlands and islands, and on bays and salt lagoons; less numerous interiorly on the larger bodies of water. Some interior record stations are: Lake Tahoe (Henshaw, Rep. Wheeler Surv., 1876, p. 275); Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 15); Ivanpah, San Bernardino County (Hollister, Auk, xxv, 1908, p. 457); Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 34).

70 (131)

**Lophodytes cucullatus** (Linnaeus)

HOODED MERGANSER

Synonyms—*Mergus cucullatus*; Hooded Sheldrake.

Status—Rather rare fall and winter visitant, both coastwise and in the interior: Humboldt Bay, McCloud and Pitt rivers (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 193); Mark West Creek, Sonoma County (J. and J. W. Mailliard, MS); Suisun Marsh, and Putah Creek, Solano County (Mus. Vert. Zool.); San Francisco (Newberry, Pac. R. R. Rep., vi, 1857, p. 104); Marysville (Belding, Proc. U. S. Nat. Mus., i, 1879, p. 447); Paicines, San Benito County (J. Mailliard, Condor, iv, 1902, p. 46); Ventura County (Evermann, Auk, iii, 1886, p. 89); Fillmore, Ventura County, and Los Angeles (Willett, Pac. Coast Avif. no. 7, 1912, p. 22); Del Rey, Los Angeles County (W. L. Chambers, Condor, xvi, 1914, p. 92); Alamitos Bay, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 10); Westminster, Orange County (Grey, Condor, xvii, 1915, p. 59); San Diego (Belding, MS).

71 (132)

**Anas platyrhynchos** Linnaeus

MALLARD

Synonyms—*Anas boschas*; Green-head.

Status—Common resident and breeding species about fresh water in suitable localities throughout the interior of the state (many records). Southernmost breeding record: San Diego (J. G. Cooper, Proc. U. S. Nat. Mus., ii, 1880, p. 251). Most abundant in winter. Occurs but sparingly on salt water.

72 (133)

**Anas rubripes** Brewster

BLACK DUCK

Status—Casual winter visitant; adult female (no. 17198, Mus. Vert. Zool.) taken at Willows, Glenn County, February 1, 1911 (J. Grinnell, Condor, xiii, 1911, p. 138).

73 (135) **Chaulelasmus streperus** (Linnaeus)

GADWALL

Synonyms—*Anas strepera*; Gray Duck.

Status—Fairly common resident west of the Sierra Nevada, chiefly on fresh water. Recorded breeding as follows: Sacramento Valley (Heermann, Pac. R. R. Rep., x, 1859, p. 69); Merced (J. Mailliard, Condor, vi, 1904, p. 15); Los Baños, Merced County (H. C. Bryant, Condor, xvi, 1914, p. 222); San Pedro (Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 508); Los Angeles (Davie, Nests & Eggs N. Amer. Bds., 4th ed., 1889, p. 63); San Jacinto Lake, Riverside County (Willett, Pac. Coast Avif. no. 7, 1912, p. 23). More common and widespread in winter.

74 (136) **Mareca penelope** (Linnaeus)

EUROPEAN WIDGEON

Synonym—*Anas penelope*.

Status—Rare winter visitant; recorded instances as follows: San Francisco market, several specimens (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 9; W. E. Bryant, Forest & Stream, xxvi, 1886, p. 426; Ridgway, Proc. U. S. Nat. Mus., iii, 1880, p. 231); Rio Vista, Solano County, two specimens (Belding, MS); Eureka, specimen (Townsend, Auk, iii, 1886, p. 491); Humboldt Bay, two specimens (F. J. Smith, MS); Bixby, Los Angeles County, specimen (J. Grinnell, Auk, xxi, 1904, p. 383).

75 (137) **Mareca americana** (Gmelin)

BALDPATE

Synonyms—*Anas americana*; *Mareca penelope*, part; American Widgeon.

Status—Common winter visitant to suitable localities throughout the state. Occurs chiefly on fresh water, but occasionally reported from salt water, as on Tomales Bay where "abundant during certain winter periods" (J. and J. W. Mailliard, MS).

76 (138) **Nettion crecca** (Linnaeus)

EUROPEAN TEAL

Synonym—*Anas crecca*.

Status—Rare visitant: Known chiefly from J. G. Cooper's statement that it had been "found not rarely in California" (Auk, iii, 1886, p. 125). Thought to have bred in marshes near Stockton (Belding, MS).

77 (139) **Nettion carolinense** (Gmelin)

GREEN-WINGED TEAL

Synonyms—*Anas carolinensis*; *Querquedula carolinensis*.

Status—Abundant winter visitant throughout the state, chiefly on fresh water. Recorded as breeding in Ventura County (Evermann, Auk, iii, 1886, p. 89), at Tulare Lake (Goldman, Condor, x, 1908, p. 129), and in Sierra Valley, Plumas County (Belding, MS).

78 (140) **Querquedula discors** (Linnaeus)

## BLUE-WINGED TEAL

Synonym—*Anas discors*.

Status—Rather rare transient and winter visitant, occurring altogether on fresh water. Record stations are as follows: Stockton, San Diego (Cajon Valley), and Agua Caliente [=Palm Springs] (Belding, Zoe, II, 1891, p. 97); Napa (W. E. Bryant, Zoe, II, 1891, p. 128); Little Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 16); Weaverville, Trinity County (Salvadori, Cat. Bds. British Mus., xxvii, 1895, p. 299); El Monte and Los Angeles (J. Grinnell, Bds. Los Angeles Co., 1898, p. 11; Swarth, Condor, II, 1900, p. 14; Swarth, Condor, XI, 1910, p. 107); Vallejo (Kobbe, Bailey's Handbook Bds., 1902, p. xlix); near Ehrenberg, on Colorado River (F. Stephens, Condor, V, 1903, p. 76); Santa Barbara (Torrey, Condor, XI, 1909, p. 173); Los Angeles County (Willett, Condor, XIII, 1911, p. 76); Bolsa Beach, Orange County (male no. 7972, in Grinnell coll.); National City, San Diego County (Willett, Pac. Coast Avif. no. 7, 1912, p. 23).

79 (141) **Querquedula cyanoptera** (Vieillot)

## CINNAMON TEAL

Synonyms—*Anas cyanoptera*; *Pterocyanca coeruleata*; *Pterocyanca discors*; Red-breasted Teal; South American Teal.

Status—Common summer visitant to suitable localities throughout the state; many recorded breeding stations both east and west of the Sierras and through the whole length of the state. Not noted anywhere on salt water. Winters sparingly west of the Sierras from the vicinity of Stockton (Belding, MS) southward through the San Diegan district.

80 (142) **Spatula clypeata** (Linnaeus)

## SHOVELLER

Synonyms—*Rynchaspis clypeata*; Spoonbill Duck.

Status—Abundant winter visitant throughout the state. Remains through the summer locally in small numbers. Breeding stations: Los Angeles (Willett, Pac. Coast Avif. no. 7, 1912, p. 24); Gorman Station, Los Angeles County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 17); Tulare Lake (Goldman, Condor, X, 1908, p. 202); near Haywards, Alameda County (Emerson, Condor, III, 1901, p. 116); Chowchilla, Merced County (J. and J. W. Mailliard, MS).

81 (143) **Dafila acuta** (Linnaeus)

## PINTAIL

Synonyms—*Dafila caudacuta*; Sprigtail.

Status—Abundant winter visitant to suitable localities throughout the state, but only rarely on salt water. Remains through the summer in small numbers locally. Breeding stations: San Jacinto Lake, Riverside County (Willett and Jay, Condor, XIII, 1911, p. 158); Bear Lake, San Bernardino Mountains (Willett, Pac. Coast Avif. no. 7, 1912, p. 24); Los Angeles (Davie, Nests & Eggs

N. Amer. Bds., 4th ed., 1889, p. 66); Alamitos, Los Angeles County (Cooke, bull. 26, Biol. Surv., U. S. Dept. Agric., 1906, p. 38); Buena Vista Lake (Linton, Condor, x, 1908, p. 50); Tulare Lake (Goldman, Condor, x, 1908, p. 202); Los Baños, Merced County, and Pennington, Sutter County (H. C. Bryant, Condor, xvi, 1914, pp. 220, 223, 227).

**82 (144) Aix sponsa (Linnaeus)**

WOOD DUCK

Synonym—Summer Duck.

Status—Now rather rare as a resident in the Sacramento and San Joaquin valleys and westwardly toward the coast; formerly common and well distributed throughout the lowlands west of the Sierras. Southernmost station: Ramona, San Diego County (Sharp, Condor, viii, 1906, p. 75). Breeding stations are: Forest Lake, San Joaquin County (Sampson, Condor, iii, 1901, p. 95); Isleton, Sacramento County (R. S. Wheeler, Nidologist, iv, 1897, p. 110); Lake Tahoe (Ray, Osprey, v, 1901, p. 116); Ventura County (Cooke, bull. 26, Biol. Surv., U. S. Dept. Agric., 1906, p. 40). For general statement as to status in California, see J. Grinnell and H. C. Bryant, Calif. Fish & Game, i, 1915, pp. 49-52.

**83 (146) Marila americana (Eyton)**

REDHEAD

Synonyms—*Aythya americana*; *Aythya erythrocephala*; *Nyroca americana*; *Nyroca ferina*; *Nyroca erythrocephala*; *Fuligula ferina americana*.

Status—Common resident in suitable localities throughout the state; most abundantly and widely distributed in winter. Recorded breeding as follows: Lower Klamath and Tule lakes, on Oregon line (H. C. Bryant, Condor, xvi, 1914, pp. 229, 231); Sacramento (Ridgway, Auk, iii, 1886, p. 403); Sacramento Valley (Heermann, Pac. R. R. Rep., x, 1859, p. 70); Ventura County (Evermann, Auk, iii, 1886, p. 89); Buena Vista Lake (Linton, Condor, x, 1908, p. 197); Los Angeles (Davie, Nests & Eggs N. Amer. Bds., 4th ed., 1889, p. 68); Nigger Slough, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 24); San Jacinto Lake, Riverside County (Willett and Jay, Condor, xiii, 1911, p. 158).

**84 (147) Marila valisineria (Wilson)**

CANVAS-BACK

Synonyms—*Aythya vallisneria*; *Nyroca valisineria*; *Fuligula vallisneria*.

Status—Common winter visitant both interiorly and along the seacoast. Most numerous, particularly in early spring, about salt water bays and coastal marshes. Many records, throughout the whole length of the state.

**85 (148) Marila marila (Linnaeus)**

GREATER SCAUP DUCK

Synonyms—*Aythya marila*; *Aythya marila nearctica*; *Fuligula marila*; *Fulix marila*; Big Black-head; Broadbill.

Status—Fairly common winter visitant on salt and brackish water coast-



90 (153) *Charitonetta albeola* (Linnaeus)

## BUFFLE-HEAD

Synonyms—*Clangula albeola*; *Bucephala albeola*; Butter-ball; Dipper, part.

Status—Common winter visitant both coastwise and in the interior, but more particularly on the salt and brackish bays and marshes of the seacoast. Many records, south to San Diego.

91 (154) *Harelda hyemalis* (Linnaeus)

## OLD-SQUAW

Synonyms—*Clangula hyemalis*; *Harelda glacialis*.

Status—Rather rare midwinter visitant. Recorded as follows: Humboldt Bay, October (T. S. Palmer, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 88); Point Reyes, January 17 (W. E. Bryant, Zoe, III, 1893, p. 363); Marin County (J. Mailliard, Condor, IV, 1902, p. 46); San Francisco, during severest winters (Newberry, Pac. R. R. Rep., VI, 1857, p. 104); San Francisco, December 26 (Loomis, Auk, XVIII, 1901, p. 105); San Francisco Bay near Redwood City, December 17 and January 25 (Littlejohn, Condor, XIV, 1912, p. 41). Monterey Bay, December 23 (Beck, Condor, IX, 1907, p. 58); Santa Barbara (Henshaw, Rep. Wheeler Surv., 1876, p. 274); Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 26); Newport, Orange County, November 28 (Daggett, Condor, III, 1901, p. 15); San Diego Bay, January 13 (Anthony, Auk, XIII, 1896, p. 172).

92 (155) *Histrionicus histrionicus* (Linnaeus)

## HARLEQUIN DUCK

Synonyms—*Histrionicus torquatus*; *Histrionicus minutus*; *Cosmonetta histrionica*.

Status—Of sparse occurrence in summer on streams of the west slope of the Sierra Nevada, where recorded as breeding: Stanislaus and Tuolumne rivers (Belding, Zoe, II, 1891, p. 97; Belding, MS); also in summer at Crockers, on South Fork of Tuolumne River, 20 miles northwest of Yosemite (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 18). Of rather irregular visitation to the open seacoast northerly, with following records: Bodega Bay (Belding, Zoe, II, 1891, p. 98); Tomales Bay, abundant in fall (J. and J. W. Mailliard, MS); Point Reyes, flocks in June (J. Mailliard, Condor, VI, 1904, p. 15); Monterey, May 25 (Loomis, Proc. Calif. Acad. Sci., 3rd ser., zool., II, 1900, p. 362); Point Pinos, near Monterey, July 7 (Loomis, Proc. Calif. Acad. Sci., 2nd ser., V, 1895, p. 222); Point Carmel, Monterey County, June 6 (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 69). The latter is our southernmost record station.

93 (162) *Somateria spectabilis* (Linnaeus)

## KING EIDER

Status—Rare winter visitant; one instance: specimen taken off Blackpoint,

San Francisco, in winter of 1879-80 (Henshaw, Bull. Nutt. Orn. Club, v, 1880, p. 189).

**94 (163)                      *Oidemia americana* Swainson**

AMERICAN SCOTER

Status—Rather rare winter visitant coastwise. Recorded as follows: Arcata Bay, Humboldt County (F. J. Smith, MS); San Francisco (Newberry, Pac. R. R. Rep., vi, 1857, p. 104); San Francisco Bay near Redwood City (Littlejohn, Condor, xiv, 1912, p. 41); Point Pinos, near Monterey (Beck, Proc. Calif. Acad. Sci., 4th ser., iii, 1910, p. 69); Morro Bay, San Luis Obispo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 18); Santa Barbara (J. G. Cooper, Auk, iv, 1887, p. 87); coast of Los Angeles County and Santa Catalina Island (J. Grinnell, Bds. Los Angeles Co., 1898, p. 12).

**95 (165)                      *Oidemia deglandi* Bonaparte**

WHITE-WINGED SCOTER

Synonyms—*Oidemia fusca*; *Melanetta velvetina*; Velvet Duck; White-winged Coot.

Status—Common winter visitant along the entire seacoast. Southernmost record: San Diego (Belding, MS). Non-breeding birds remain throughout the summer on San Francisco and Monterey bays, and south as far as San Miguel Island (Willett, Condor, xii, 1910, p. 173), and Santa Barbara (Torrey, Condor, xii, 1910, p. 204).

**96 (166)                      *Oidemia perspicillata* (Linnaeus)**

SURF SCOTER

Synonyms—*Oedemia perspicillata* var. *troubridgei*; *Pelionetta perspicillata*; *Pelionetta troubridgei*; Sea Coot; Surf Duck.

Status—Abundant winter visitant along our whole seacoast; confined almost exclusively to salt water. Occasional non-breeding birds remain all summer.

**97 (167)                      *Erismatura jamaicensis* (Gmelin)**

RUDDY DUCK

Synonyms—*Erismatura rubida*; *Erismatura dominicensis*.

Status—Common resident in suitable localities throughout the state; in winter on San Francisco and Tomales bays (J. and J. W. Mailliard, MS), otherwise on fresh water. Many breeding records from the southern half of the state; northernmost: on the coast, Santa Cruz (Ingersoll, Orn. & Ool., ix, 1884, p. 15); interiorly, Tule Lake, on Oregon line (H. C. Bryant, Condor, xvi, 1914, p. 230); southernmost: Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 86), and San Diego (Belding, MS).

**98 (169)                      *Chen hyperboreus hyperboreus* (Pallas)**

LESSER SNOW GOOSE

Synonyms—*Anser hyperboreus*; *Chen albatius*; *Anser albatius*; *Chen hyperborea nivalis*.



Status—Abundant winter visitant to the interior valleys; less frequent near the seacoast. Recorded south to San Diego (Belding, MS), and southeast to the Colorado River below Needles (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 116).

99 (170) **Chen rossi** (Cassin)

ROSS SNOW GOOSE

Synonym—*Anser rossi*.

Status—Fairly common winter visitant to the Sacramento-San Joaquin Valley and to the vicinity of Los Angeles. Recorded also from Ventura County (Evermann, Auk, III, 1886, p. 90), and Newport, Orange County (Daggett, Condor, III, 1901, p. 15). The latter is our southernmost record-station.

100 (171a) **Anser albifrons gambeli** Hartlaub

WHITE-FRONTED GOOSE

Synonyms—*Anser erythropus*; *Anser albifrons*; *Anser gambeli*; *Bernicla gambeli*; Laughing Goose; Checker-breast.

Status—Common winter visitant in suitable localities throughout the state. As with the snow and Canada geese, the San Joaquin-Sacramento Valley is the area of marked abundance.

101 (172) **Branta canadensis canadensis** (Linnaeus)

CANADA GOOSE

Synonyms—*Bernicla canadensis*; *Branta canadensis occidentalis*; White-cheeked Goose.

Status—Fairly common in summer in suitable parts of northeastern California; breeding stations: Lower Klamath Lake (Newberry, Pac. R. R. Rep., VI, 1857, p. 100; H. C. Bryant, Condor, XVI, 1914, p. 232); Eagle Lake, Lassen County (Sheldon, Condor, IX, 1907, p. 187); Lake Tahoe (Belding, Zoe, III, 1892, p. 100). The identity of the goose nesting at Lake Tahoe has lately been proven to be with *canadensis* rather than with *occidentalis* by the taking of a breeding female, May 15, 1911, at Rowland's Marsh; this bird is no. 17224, Mus. Vert. Zool. (see Ray, Condor, XIV, 1912, p. 72). Occurs in winter regularly south through the interior valleys; southernmost record stations: Bixby, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 13); Elsinore Lake (Nordhoff, Auk, XIX, 1902, p. 214); and "near San Diego" (Belding, Zoe, III, 1892, p. 100). *B. c. occidentalis*, the so-called White-cheeked Goose, is now believed to have no claim to recognition as a bird of California (see Swarth, Univ. Calif. Publ. Zool., XII, 1913, pp. 1-24, figs. and pls.).

102 (172a) **Branta canadensis hutchinsi** (Richardson)

HUTCHINS GOOSE

Synonyms—*Anser hutchinsi*; *Bernicla hutchinsi*.

Status—Common winter visitant to suitable localities throughout the state. Most plentiful in the Sacramento and San Joaquin valleys. Recorded east to

Owens and Death valleys (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 19), and south to San Diego (Heermann, Pac. R. R. Rep., x, 1859, p. 67).

**103 (172c)                    *Branta canadensis minima* Ridgway**

CACKLING GOOSE

Synonyms—*Bernicla leucoparia*; *Branta hutchinsi* var. *leucoparia*; *Branta minima*.

Status—Common winter visitant to the Sacramento and San Joaquin valleys; also to the southward as far as San Diego County (A. O. U. Check-List, 3rd ed., 1910, p. 86).

**104 (173a)                    *Branta bernicla glaucogastra* (Brehm)**

EASTERN SEA BRANT

Status—Rare midwinter visitant. One record: adult male, now no. 24588 Mus. Vert. Zool., taken near Bird Island on Arcata Bay, Humboldt County, January 30, 1914 (H. C. Bryant, Condor, xvi, 1914, p. 183).

**105 (174)                    *Branta nigricans* (Lawrence)**

BLACK SEA BRANT

Synonyms—*Bernicla brenta*; *Bernicla nigricans*; Black Brant.

Status—Fairly common winter visitant along our whole seacoast. Reported most numerous from San Diego, Bodega (Belding, MS), and Tomales (J. W. Mailliard, MS) bays. Occurs but rarely away from salt water: Klamath River, near Beswick, Siskiyou County (Ferry, Condor, x, 1908, p. 39); Los Baños, Merced County, January 3, 1912 (no. 22078, Mus. Vert. Zool.).

**106 (176)                    *Philacte canagica* (Sebastianoff)**

EMPEROR GOOSE

Status—Rather frequent winter visitant chiefly to fresh water areas in west-central California; recorded instances as follows: specimen taken at Humboldt Bay in the winter of 1884 (Townsend, Auk, iii, 1886, p. 491); specimen from Gridley, taken in the fall of 1895, and one found October 8, 1900, in a San Francisco market (Loomis, Auk, xviii, 1901, p. 105); specimen from Rio Vista, Solano County, November 3, 1910 (Littlejohn, Condor, xiv, 1912, p. 41); three taken at Dixon, Solano County, one at Colusa, Colusa County, in November, 1912, male taken ten miles west of Modesto, Stanislaus County, November 15, 1913, and an immature male taken near Ingomar, Merced County, in December, 1912 (H. C. Bryant, Condor, xvi, 1914, p. 92); specimen taken near Davis, Yolo County, in December, 1906 (H. C. Bryant, Condor, xvii, 1915, p. 58).

**107 (177)                    *Dendrocygna autumnalis* (Linnaeus)**

BLACK-BELLIED TREE-DUCK

Status—Rare visitant from the south. One authentic record for the state: a mounted specimen in possession of Vernon Shephard, of San Francisco, taken in the Imperial Valley, Imperial County, in the fall of 1912 (H. C. Bryant, Con-

dor, xvi, 1914, p. 94). A specimen is stated to have been procured at Fort Tejon by Xantus, "who regarded it as of rare and unusual occurrence" (Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 482). Xantus gives only *D. fulva* in his list of the birds of Fort Tejon (Proc. Acad. Nat. Sci. Phila., 1859, p. 192); and a single specimen of *fulva* (and none of *autumnalis*) is recorded from there by Baird (Pac. R. R. Rep., ix, 1858, p. 770). So that there is the apparent possibility of an error having been committed in the first cited work through transcribing information under the wrong heading.

**108 (178)                      *Dendrocygna bicolor* (Vieillot)**

FULVOUS TREE-DUCK

Synonym—*Dendrocygna fulva*.

Status—Common as a summer visitant to the interior valleys southerly, breeding in the San Joaquin Valley and in Los Angeles County. Occurs casually in winter. Northernmost records at any season: in the coast belt, Marin County (J. Mailliard, Condor, vi, 1904, p. 15); in the San Joaquin-Sacramento basin, Marysville (Belding, Proc. U. S. Nat. Mus., i, 1879, p. 445); east of the Sierras, Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 19). Breeding stations: Nigger Slough, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 28); Los Baños, Merced County (Barnhart, Condor, iii, 1901, p. 67).

**109 (180)                      *Olor columbianus* (Ord)**

WHISTLING SWAN

Synonyms—*Cygnus americanus*; American Swan.

Status—Fairly common winter visitant to suitable localities (usually the larger freshwater lakes and brackish heads of bays) south through the state (many records) at least to Orange County (specimen in Grinnell coll.). Several recent records and specimens from the west-central part of the state (Mus. Vert. Zool.), and from the vicinity of Los Angeles (Willett, Pac. Coast Avif. no. 7, 1912, p. 28).

**110 (181)                      *Olor buccinator* (Richardson)**

TRUMPETER SWAN

Synonym—*Cygnus buccinator*.

Status—Of regular occurrence, formerly, south through the interior of the state. The following are some more or less definite records: A juvenile specimen from "California" has been listed as contained in the British Museum (Salvadori, Cat. Bds. British Mus., xxvii, 1895, p. 35). J. G. Cooper (in Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 431) states that in his day this species was found in small numbers in winter about freshwater lakes and ponds inland. Heermann (Pac. R. R. Rep., x, 1859, p. 68) states that he saw the species in the Suisun and Sacramento valleys, as well as frequently in the San Francisco market; but since the Whistling Swan is not listed by him at all, this record might be properly queried. Newberry (Pac. R. R. Rep., vi, 1857, p. 100) gives both swans from California, designating the Trumpeter as the least



River; irregular and less common visitant in midsummer through the San Diegan district (for records see Willett, *Pac. Coast Avif.* no. 7, 1912, p. 29); north casually to San Francisco Bay, Haywards, and "San Joaquin Valley" (J. G. Cooper, *Auk*, iv, 1887, p. 90); noted also at Yermo, Mohave Desert, June 18 (Lamb, *Condor*, xiv, 1912, p. 34). No definite nesting record, the species probably breeding wholly south of the Mexican line.

114 (190)                    **Botaurus lentiginosus** (Montagu)

AMERICAN BITTERN

Synonyms—*Botaurus minor*; *Ardea minor*; Stake-driver.

Status—Common resident interiorly, breeding in suitable localities in the interior valleys, and south as far as Alamitos, Los Angeles County (Robertson, *Bull. Cooper Orn. Club*, i, 1899, p. 94). Most numerous and widely spread west of the Sierran divide in winter; probably absent at this season from northeast of the Sierra Nevada.

115 (191)                    **Ixobrychus exilis** (Gmelin)

LEAST BITTERN

Synonyms—*Ardetta exilis*; *Ardea exilis*; *Ardeola exilis*; *Botaurus exilis*.

Status—Fairly common summer visitant locally north through the interior to the Sacramento Valley. Also occurs near the coast southerly. Only four definite breeding records: Stockton (Belding, MS); Los Angeles County (J. Grinnell, *Bds. Los Angeles Co.*, 1898, p. 14; Willett, *Pac. Coast Avif.* no. 7, 1912, p. 30); San Jacinto Lake, Riverside County (Willett and Jay, *Condor*, xiii, 1911, p. 159); Escondido, San Diego County (Sharp, *Condor*, ix, 1907, p. 91). Casual at Yermo, Mohave Desert, August 7 (Lamb, *Condor*, xiv, 1912, p. 35).

116 (194, part)            **Ardea herodias hyperonca** Oberholser

CALIFORNIA GREAT BLUE HERON

Synonyms—*Ardea herodias*, part; *Ardea herodias oligista*; Blue Crane; Great Blue Heron, part.

Status—Abundant resident in suitable localities throughout the state chiefly west and north of the desert divides. Very many recorded breeding stations in the interior valleys, west to Redwood City, San Mateo County (Carriger and Pemberton, *Condor*, x, 1908, p. 78), north to Eagle Lake, Lassen County (Sheldon, *Condor*, ix, 1907, p. 187), and south to San Diego (J. G. Cooper, *Proc. U. S. Nat. Mus.*, ii, 1880, p. 251). Common in winter also along the seacoast from the Oregon to the Mexican line, as also about all of the adjacent islands. Although individuals occur throughout the year around the Santa Barbara Islands (see Willett, *Pac. Coast Avif.* no. 7, 1912, p. 30), there is no good reason for the recognition of a local insular race (see Swarth, *Condor*, xv, 1913, p. 50).

117 (194, part)            **Ardea herodias treganzai** Court

PALLID GREAT BLUE HERON

Synonyms—*Ardea herodias*, part; Great Blue Heron, part; Treganza Heron.

Status—Abundant resident along the Colorado River and its distributaries, from the Nevada to the Mexican line (Coues, Ibis, 2nd ser., II, 1866, p. 263; Hollister, Auk, xxv, 1908, p. 457; J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 116), and on Salton Sea (J. Grinnell, Condor, x, 1908, p. 190). Recorded (casually?) west to near San Diego (Oberholser, Proc. U. S. Nat. Mus., vol. 43, 1912, p. 546), and in Sacramento Valley (Cooke, U. S. Biol. Surv., Bull. no. 45, 1913, p. 36). Records from the following points east of the Sierra Nevada probably also pertain to this subspecies: Mono Lake (W. K. Fisher, Condor, IV, 1902, p. 11); Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 153).

**118 (196) Herodias egretta (Gmelin)**

AMERICAN EGRET

Synonyms—*Ardea egretta*; *Herodias egretta* var. *californica*; *Herodias alba egretta*; *Ardea occidentalis*; *Audubonia occidentalis*.

Status—Fairly common visitant to favoring localities in the interior valleys, occurring only in summer in the northeastern section of the state, but irrespective of season elsewhere. Formerly numerous and widespread (many records). Recorded as nesting at one time about lakes in northeastern California (Henshaw, Rep. Wheeler Surv., 1879, p. 323), and in the vicinity of Tulare Lake (Willetts, Pac. Coast Avif. no. 7, 1912, p. 30). Localities of former occurrence include points on the coast as well as in the interior. Said to be now on the increase (J. Mailliard, Condor, XIII, 1911, p. 50; *ibid.*, 1912, p. 74; H. C. Bryant, Condor, XIV, 1912, p. 199; Grey, Condor, XV, 1913, p. 129; Myers, Condor, XVI, 1914, p. 93), and a few are reported as nesting recently at Clear Lake, Modoc County (Finley, Bird-Lore, XIII, 1911, p. 347).

**119 (197) Egretta candidissima candidissima (Gmelin)**

SNOWY EGRET

Synonyms—*Ardea candidissima*; *Garzetta candidissima*; *Egretta candidissima brewsteri*; Snowy Heron.

Status—Now rather rare and of irregular occurrence in the interior valleys. Common formerly as a summer visitant, both east and west of the Sierras (many records). But one definite breeding record: near Dos Palos, Merced County (Dawson, Condor, XVII, 1915, p. 97). Individuals occurred throughout the year southerly west of the Sierras at least as far north as Stockton (Belding, MS), and even Sacramento (J. Mailliard, Condor, XIII, 1911, p. 50). Recorded from coastal points as well as interiorly, a recent seacoast station being Carpinteria, Santa Barbara County (Dawson, Condor, XIV, 1912, p. 223).

**120 (199) Hydranassa tricolor ruficollis (Gosse)**

LOUISIANA HERON

Status—Casual visitant from the south; one record. An adult female specimen taken at La Punta, on south end of San Diego Bay, January 17, 1914 (Huey, Condor, XVII, 1915, p. 57).

**121 (201c)            *Butorides virescens anthonyi* (Mearns)**

## ANTHONY GREEN HERON

Synonyms—*Ardea virescens*; *Butorides virescens*; *Ardea virescens anthonyi*; Fly-up-the-creek.

Status—Common summer visitant along rivers and lakes, wherever such occur, north at least to Ukiah, Mendocino County (McGregor, *Nidologist*, III, 1896, p. 129) and Yreka, Siskiyou County (Townsend, *Proc. U. S. Nat. Mus.*, x, 1887, p. 197). Breeding records from the San Joaquin and Sacramento valleys, from the Sespe River, Ventura County (Peyton, *Condor*, XIII, 1911, p. 35), from near Whittier, Los Angeles County (Willett, *Pac. Coast Avif.* no. 7, 1912, p. 31), and from vicinity of San Diego (Huey, *Condor*, XVII, 1915, p. 59). Numerous and widespread during migration, except along the seacoast. A few are reported as wintering in the San Diegan district (Baird, Brewer and Ridgway, *Water Bds. N. Amer.*, I, 1884, p. 52; Feudge, *Condor*, v, 1903, p. 80); in winter rarely north to Stockton (Belding, MS).

**122 (202)            *Nycticorax nycticorax naevius* (Boddaert)**

## BLACK-CROWNED NIGHT HERON

Synonyms—*Nycticorax nycticorax*; *Nycticorax naevius*; *Nycticorax griseus naevius*; *Nyctiardea gardeni*; *Nyctiardea grisea naevia*.

Status—Abundant in summer in suitable localities throughout the state; occurs most widely during migration. Winters in relatively small numbers in the west-slope valleys of central and southern California. Northernmost winter occurrence, San Geronimo, Marin County (J. and J. W. Mailliard, MS).

**123 (205)            *Grus canadensis* (Linnaeus)**

## LITTLE BROWN CRANE

Synonyms—*Grus mexicana*, part; Sandhill Crane, part.

Status—While definite records of this species have only recently been established, I feel confident that this is the crane seen commonly in migration through the interior of the state. It follows that many of the records of "*Grus mexicana*" probably pertain wholly or in part to *G. canadensis*. While most abundant in migration, many winter, at least in the San Joaquin Valley. Definite record stations for *G. canadensis* are: San Francisco, San Rafael, and "northern California" (Buturlin, *Ibis*, 9th ser., I, 1907, p. 364); Newport, Orange County, and Centinella, Los Angeles County (J. Grinnell, *Condor*, XI, 1909, p. 128); Long Beach and Riverside (Willett, *Pac. Coast Avif.* no. 7, 1912, p. 32); vicinity of Los Baños, Merced County (J. Mailliard, *Condor*, XIII, 1911, p. 50; also six specimens in *Mus. Vert. Zool.*).

**124 (206)            *Grus mexicana* (Müller)**

## SANDHILL CRANE

Synonyms—*Grus canadensis*, part; *Grus canadensis mexicana*.

Status—Fairly common summer visitant to the northward interiorly; at

least a few winter in the San Joaquin Valley. Recorded as breeding in the northeastern corner of the state (Henshaw, Rep. Wheeler Surv., 1879, p. 323; Cooke, U. S. Dept. Agric., bull. 128, 1914, p. 11); summer records also from alpine meadows of the northern Sierras (several records), and from the San Joaquin Valley south to the Tulare Lake region (Goldman, Condor, x, 1908, p. 202).

125 (210)

**Rallus obsoletus** Ridgway

## CALIFORNIA CLAPPER RAIL

Synonyms—*Rallus elegans*; *Rallus elegans* var. *obsoletus*; Red-breasted Rail; Marsh Hen.

Status—Common resident on the salt marshes around the south arm of San Francisco Bay. Has been recorded (casually?) from Petaluma (Newberry, Pac. R. R. Rep., vi, 1857, p. 96), from the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., i, 1888, p. 42), from Tomales Bay (Storer, Condor, xvii, 1915, p. 98), and from Humboldt Bay (Suckley, Pac. R. R. Rep., xii, 1860, p. 246; Storer, *loc. cit.*). Occurred formerly, 25 or more years ago, on the San Francisco Bay shores of Marin and Sonoma counties (J. and J. W. Mailliard, MS), and there are unconfirmed rumors of its more recent presence on the salt marshes of Monterey Bay. The range of this comparatively large rail was thus always within history at best extremely restricted; and now, with the reclamation of marshlands around San Francisco Bay, and as subjected to concentrated pursuit by hunters, the species seems destined to early extinction.

126 (210.1)

**Rallus levipes** Bangs

## LIGHT-FOOTED RAIL

Synonyms—*Rallus obsoletus*, part; Southern California Clapper Rail.

Status—Common resident on the coastal marshes of the San Diegan district. Recorded at various points from San Diego to Santa Barbara. While usually restricted to salt marshes, there is one breeding record from fresh water: Nigger Slough, Los Angeles County (Willett, Condor, viii, 1906, p. 151). This rail, like its near relative, *obsoletus*, is becoming notably scarcer year by year, and in many marshes where it formerly occurred commonly it is now unknown (see Willett, Pac. Coast Avif. no. 7, 1912, p. 32).

127 (212)

**Rallus virginianus** Linnaeus

## VIRGINIA RAIL

Synonym—Sora, part.

Status—Common in summer in suitable localities throughout the state. Southernmost breeding station, Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 86). Fairly common in winter west of the Sierras and north at least as far as the Suisun marshes, Solano County (Mus. Vert. Zool.), and Tomales Bay (J. and J. W. Mailliard, MS).



**128 (214)                    *Porzana carolina* (Linnaeus)**

## SORA RAIL

Synonyms—Common Rail; Sora, part.

Status—Common in summer in appropriate localities throughout the state; recorded as breeding as far south as Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 86). Fairly common in winter in interior valleys west of the Sierras, occurring at that season north as far as Mad River, Humboldt County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 197). Casual on the Farallon Islands (Keeler, Zoe, iii, 1892, p. 164).

**129 (215)                    *Coturnicops noveboracensis* (Gmelin)**

## YELLOW RAIL

Synonym—*Ortygops noveboracensis*.

Status—Rather rare winter visitant to the marshes of west-central California: Martinez, Contra Costa County (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 8); Alvarado, Alameda County (W. E. Bryant, Forest & Stream, xxvi, 1886, p. 426); Alameda County (H. B. Kaeding, Osprey, ii, 1898, p. 70); Sonoma County (Carriger, Bull. Cooper Orn. Club, i, 1899, p. 72); Rincon Valley, Sonoma County (Mus. Vert. Zool.); Suisun Marshes, Solano County (Mus. Vert. Zool.); Los Baños, Merced County (Mus. Vert. Zool.); Marin County (J. Mailiard, Condor, iii, 1901, p. 16); San Mateo County and Berryessa, Santa Clara County (Cooke, U. S. Dept. Agric., Bull. 128, 1914, p. 32). Also Humboldt Bay (Townsend, Auk, iii, 1886, p. 491), Newport Bay, Orange County (Osburn, Condor, xiii, 1911, p. 108), and Corona, Riverside County (Pierce, Condor, xvi, 1914, p. 182).

**130 (216.1)                    *Creciscus coturniculus* (Ridgway)**

## CALIFORNIA BLACK RAIL

Synonyms—*Porzana jamaicensis*; *Creciscus jamaicensis*; *Porzana jamaicensis coturniculus*; *Porzana coturniculus*; Farallon Rail.

Status—Fairly common fall and winter visitant to salt marshes of the San Francisco Bay region: shores of San Mateo and Alameda counties (many specimens), and Point Reyes Station, head of Tomales Bay (many records); also interiorly: Martinez, Contra Costa County (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 8), Suisun marshes, Solano County (Mus. Vert. Zool.), and Stockton (Belding, Proc. U. S. Nat. Mus., i, 1879, p. 443); and southerly: Santa Cruz (Emerson, Condor, vi, 1904, p. 38), Hueneme, Ventura County (Willett, Pac. Coast Avif. no. 7, 1912, p. 33), Orange, Orange County, and Ballona, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 15), Riverside (L. H. Miller, Orn. & Ool., xviii, 1893, p. 104), and San Diego (Belding, MS). Casual on the Farallones (see Brewster, Auk, xxiv, 1907, p. 205). There is in Mus. Vert. Zool. a second Farallon specimen (no. 17199) taken in December, 1909. Fairly common in summer, and breeding, on the salt marshes of San Diego Bay (F. Stephens, Condor, xi, 1909, p. 47; Ingersoll, Condor, xi, 1909, p. 123).

**131 (219) Gallinula galeata** (Lichtenstein)

## FLORIDA GALLINULE

Synonym—*Gallinula chloropus galeata*.

Status—Fairly common summer visitant to suitable localities in the San Diegan District northwest to Santa Barbara, and in the San Joaquin-Sacramento Valley as far north as Sutter County: several breeding records. Recorded also from San Francisco (Newberry, Pac. R. R. Rep., vi, 1857, p. 96). A few winter southerly, as, for instance, at Los Angeles (Swarth, Condor, II, 1900, p. 15).

**132 (221) Fulica americana** Gmelin

## COOT

Synonym—Mud-hen.

Status—Abundant resident of suitable localities throughout the state, breeding at very many points both east and west of the Sierras.

**133 (222) Phalaropus fulicarius** (Linnaeus)

## RED PHALAROPE

Synonym—*Crymophilus fulicarius*.

Status—Common in both migrations over the ocean and along the seacoast; casual interiorly: Stockton (Belding, MS); Pasadena (J. Grinnell, Bds. Los Angeles Co., 1898, p. 16); Los Angeles (Willett, Pac. Coast Avif. no. 7, 1912, p. 34). Winters irregularly on the ocean southerly: off San Diego (McGregor, Osprey, II, 1898, p. 88), around Santa Cruz and Anacapa islands (Willett, Condor, XII, 1910, p. 175), and off Point Pinos, near Monterey (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 70).

**134 (223) Lobipes lobatus** (Linnaeus)

## NORTHERN PHALAROPE

Synonyms—*Phalaropus lobatus*; *Phalaropus hyperboreus*.

Status—Common spring and fall migrant along the seacoast, both on the ocean and on nearby bodies of water inland. Recorded also from: head of Kern River (Henshaw, Rep. Wheeler Surv., 1876, p. 271); Mono Lake (W. K. Fisher, Condor, IV, 1902, p. 10); Webber Lake, Sierra County (Belding, Land Bds. Pac. Dist., 1890, p. 267); Lake Tahoe (Belding, MS); Yermo, Mohave Desert, August 20 to September 10 (Lamb, Condor, XIV, 1912, p. 35).

**135 (224) Steganopus tricolor** Vieillot

## WILSON PHALAROPE

Synonyms—*Phalaropus tricolor*; *Phalaropus wilsoni*.

Status—Fairly common summer visitant to suitable country in northeastern California. Recorded as breeding south to Lake Tahoe (Ray, Condor, V, 1903, p. 49), and west to Lower Klamath Lake, on Oregon line (H. C. Bryant, Condor, XVI, 1914, p. 232). Recorded in migration from Los Baños, Merced County (J.

Mailliard, Condor, vi, 1904, p. 15) west to Cemeteries, San Mateo County (Pemberton, Condor, xi, 1909, p. 207), and Santa Barbara (Torrey, Condor, xi, 1909, p. 173; Bowles, Condor, xiii, 1911, p. 35), thence south through the interior of southern California.

**136 (225)                      *Recurvirostra americana* Gmelin**

AVOCET

Synonym—*Recurvirostra occidentalis*.

Status—Common summer visitant to suitable localities in the Modoc region, in the San Joaquin and Sacramento valleys, and in the San Diegan district. Many breeding stations recorded, west on the Oregon line to Lower Klamath Lake (H. C. Bryant, Condor, xvi, 1914, p. 233), and south at least to Santa Ana, Orange County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 16). Occurs more widely in migration, west to the coastal region south of San Francisco Bay. Winters in fair numbers in the San Diegan district, casually as far north as Stockton (Belding, MS), and Novato, Marin County (J. and J. W. Mailliard, MS).

**137 (226)                      *Himantopus mexicanus* (Müller)**

BLACK-NECKED STILT

Synonym—*Himantopus nigricollis*.

Status—Common summer visitant to interior localities the whole length of the state, chiefly east of the Sierras at the north, west of the desert divide at the south, and in the San Joaquin-Sacramento Valley through the center of the state. In the latter area recorded as breeding north to Sutter County (Belding, Proc. U. S. Nat. Mus., i, 1879, p. 440), and in the San Diegan district south to Santa Ana, Orange County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 16). Occurs in migration in the coast belt north to Miller, Marin County (Kobbe, Bailey's Handbook Bds., 1902, p. 1), casually to San Nicolas Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 26).

**138 (230)                      *Gallinago delicata* (Ord)**

WILSON SNIPE

Synonyms—*Gallinago wilsoni*; *Scolopax wilsoni*; *Gallinago media*; *Gallinago media wilsoni*; English Snipe; Jack Snipe.

Status—Common migrant almost throughout the state; remains in moderate numbers through the winter in west-central and southern California. A few spend the summer in the Sierras; recorded as breeding at Eagle Lake, Lassen County (Cooke, Bull. 35, U. S. Biol. Surv., 1910, p. 23); Webber Lake, Sierra County (Belding, Land Bds. Pac. Dist., 1890, p. 267); Lake Tahoe (Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 190); and near Gorman, in Tejon Pass, extreme northern Los Angeles County (J. Mailliard, Condor, xvi, 1914, p. 261). Also in breeding season around Lower Klamath Lake, on Oregon line (H. C. Bryant, Condor, xvi, 1914, p. 232). Adult specimen in Mus. Vert.

Zool. taken July 5 on the South Fork of the Kern River, near Weldon, Kern County, possibly indicates a breeding station at this point.

**139 (232)            *Macrorhamphus griseus scolopaceus* (Say)**

LONG-BILLED DOWITCHER

Synonyms—*Scolopax grisea*; *Scolopax noveboracensis*; *Macrorhamphus griseus*; *Macrorhamphus scolopaceus*; Gray Snipe; Red-breasted Snipe.

Status—Common migrant both along the seacoast and through the interior valleys west of the Sierras. Winters sparingly in the San Diegan district, and irregularly in the west-central portion of the state: San Diego (Belding, MS), Santa Ana, Orange County (J. Grinnell, MS), and Los Baños, Merced County (Mus. Vert. Zool.; Beek, MS).

**140 (234)            *Tringa canutus* Linnaeus**

KNOT

Status—Fairly common spring and fall migrant coastwise. Recorded from Humboldt Bay "in winter" (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 198); Alameda County shore of San Francisco Bay, April 27 to May 10 (Mus. Vert. Zool.; J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 25); Monterey, August 7 and 17 (Mus. Vert. Zool.); Santa Barbara, August 21 to September 7 (Bowles and Howell, Condor, xiv, 1912, p. 8); Alamitos Bay, Los Angeles County, September 18 and October 10 (Willett, Pac. Coast Avif. no. 7, 1912, p. 36); Anaheim Landing, Orange County, October 3 (Lamb, Condor, xi, 1909, p. 208); Pacific Beach, San Diego County, September 10 and 16 (Bishop, Condor, vii, 1905, p. 141); San Diego, October 7 and 9 (Dwight, Auk, xxi, 1904, p. 78).

**141 (239)            *Pisobia maculata* (Vieillot)**

PECTORAL SANDPIPER

Synonyms—*Tringa maculata*; *Actodromas maculata*.

Status—Rare spring and fall migrant, recorded as follows: San Francisco Bay (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 8); San Francisco Bay [Oakland], October 8 [1883], one specimen (Kobbe, Bailey's Handbook, 1902, p. 1; as evidently based on specimen recorded by W. E. Bryant under the name *Tringa fuscicollis*; see p. 178); Mill Valley Junction, near Sausalito, September 14 (J. Mailliard, Condor, vi, 1904, p. 15); Farallon Islands, September 4 (Cooke, U. S. Biol. Surv., Bull. no. 35, 1910, p. 36); Santa Barbara, April 14, and August 18 to September 23 (Bowles and Howell, Condor, xiv, 1912, p. 8; Torrey, Condor, xii, 1910, p. 44).

**142 (241)            *Pisobia bairdi* (Coues)**

BAIRD SANDPIPER

Synonyms—*Heteropygia bairdi*; *Actodromas bairdi*; *Tringa bairdi*.

Status—Rare fall migrant; recorded as follows: Monterey, August 25, 1897, one specimen (J. Mailliard, Auk, xv, 1898, p. 51); Santa Barbara, August 10 to

September 7, 1910 and 1911, several (Bowles and Howell, *Condor*, xiv, 1912, p. 8); coast of Santa Barbara County—Santa Barbara and Carpinteria—August 8 to 22, 1912 (Dawson, *Condor*, xiv, 1912, p. 224); White's Landing, Santa Catalina Island, September 1, 1907, one specimen (J. Grinnell, *Condor*, xi, 1909, p. 139); Pacific Beach, San Diego County, September 8, 1904, one specimen (Bishop, *Condor*, vii, 1905, p. 141); "California", three specimens (Sharpe, *Cat. Bds. British Mus.*, xxiv, 1896, p. 573).

**143 (242) *Pisobia minutilla* (Vieillot)**

LEAST SANDPIPER

Synonyms—*Tringa minutilla*; *Tringa wilsoni*; *Actodromas minutilla*; *Limonites minutilla*.

Status—Abundant migrant throughout the state. Common through the winter west of the Sierras from the San Francisco Bay region south through the San Diegan district. Non-breeding or migrant individuals occur throughout the summer months.

**144 (243a) *Pelidna alpina sakhalina* (Vieillot)**

RED-BACKED SANDPIPER

Synonyms—*Tringa alpina*; *Tringa pacifica*; *Tringa alpina pacifica*; *Pelidna americana*; *Pelidna alpina americana*; *Tringa alpina* var. *americana*.

Status—Common migrant along the seacoast, occurring also on suitable ground a few miles inland. Remains through the winter in small numbers in the central and southern coast regions from San Francisco Bay southwards; also noted in winter in the Sacramento Valley (Belding, MS), and at Los Baños (Mus. Vert. Zool.).

**145 (247) *Ereunetes mauri* Cabanis**

WESTERN SANDPIPER

Synonyms—*Tringa semipalmata*; *Ereunetes petrificatus*; *Ereunetes pusillus*; *Ereunetes occidentalis*; *Ereunetes pusillus occidentalis*.

Status—Abundant spring and fall migrant coastwise; occurs also, but sparingly, in suitable localities in the interior: Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 23); Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 110); etc. A few are noted throughout the winter in the San Diegan district and north as far as Oakland and Berkeley (Belding, MS). There is a December record for San Clemente Island (Linton, *Condor*, xi, 1909, p. 194).

**146 (248) *Calidris leucophaea* (Pallas)**

SANDERLING

Synonyms—*Tringa arenaria*; *Calidris arenaria*.

Status—Common transient and winter visitant along the seashore of the San Diegan district and around the Santa Barbara Islands; northward less commonly as far as the San Francisco Bay region: San Francisco (Baird, Brewer,

and Ridgway, Water Bds. N. Amer., 1, 1884, p. 253), and Oakland (Kobbe, Bailey's Handbook Bds., 1902, p. 1); also Bolinas and Point Reyes, Marin County (J. and J. W. Mailliard, MS). One interior station: Salton Sea, Imperial County, April 20 and 30 (Mus. Vert. Zool.); not recorded from any other point inland.

**147 (249)                      *Limosa fedoa* (Linnaeus)**

MARBLED GODWIT

Status—Common migrant along the seacoast; occurs occasionally a short distance inland, as at Elsinore Lake (Nordhoff, Auk, xix, 1902, p. 214), Stockton (Belding, MS), and Los Baños, Merced County (Mus. Vert. Zool.). A few remain apparently all winter even as far north as Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 198); and stragglers have been observed in June, as at Santa Barbara (Torrey, Condor, xii, 1910, p. 204).

**148 (254)                      *Totanus melanoleucus* (Gmelin)**

GREATER YELLOW-LEGS

Synonyms—*Gambetta melanoleuca*; Tell-tale; Stone Snipe.

Status—Common migrant both along the seacoast and at suitable points through the interior; many records. Occurs in winter sparingly in the San Joaquin Valley, in the San Diegan district, and, more commonly, in the Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 131). While late northward migrants and early southbound birds almost span the summer, no authentic breeding records are known.

**149 (255)                      *Totanus flavipes* (Gmelin)**

LESSER YELLOW-LEGS

Synonym—*Gambetta flavipes*.

Status—Rare migrant. Besides several general statements, the following are the records specifying definite localities: Rhett [=Tule] Lake (Newberry, Pac. R. R. Rep., vi, 1857, p. 98); Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 198); Shasta Valley, Siskiyou County, "heard", September 19 (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 110); Gridley, Butte County, April 20 (Belding, MS); Stockton, September 13 (Belding, Proc. U. S. Nat. Mus., 1, 1879, p. 441); Santa Barbara, August 30 to about September 12, 1912 (Dawson, Condor, xiv, 1912, p. 224); Santa Barbara, August 16, 1913 (Dawson, Condor, xv, 1913, pp. 204-205, figs. 57-58); Riverside, twice in autumn (Heller, Condor, iii, 1901, p. 100); San Diego (Belding, MS).

**150 (256a)                      *Helodromas solitarius cinnamomeus* (Brewster)**

WESTERN SOLITARY SANDPIPER

Synonyms—*Totanus solitarius*; *Totanus solitarius cinnamomeus*; *Rhyacophilus solitarius*.

Status—Fairly common migrant, occurring both near the sea and through the interior; appears most often along freshwater streams, occurring even at

considerable elevations in mountainous regions. Many record stations, widely scattered, though most numerous south of the 35th parallel.

**151 (258a) *Catoptrophorus semipalmatus inornatus* (Brewster)**

WESTERN WILLET

Synonyms—*Totanus semipalmatus*; *Catoptrophorus semipalmatus*; *Symphemia semipalmata*; *Symphemia semipalmata inornata*.

Status—Common migrant coastwise, more sparingly through the interior. Remains through the summer in suitable localities northeast of the Sierras: Alturas and Davis Creek, Modoc County (Mus. Vert. Zool.); Beekwith, Plumas County (Cooke, U. S. Biol. Surv., Bull. no. 35, 1910, p. 62). Stragglers or transients occur during each summer month along the seacoast, but no definite breeding record is known to me outside of the above indicated area. Remains through the winter regularly on and near the seacoast of the San Diegan district and in the vicinity of San Francisco Bay; recorded in winter north as far as Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 199).

**152 (259) *Heteractitis incanus* (Gmelin)**

WANDERING TATTLER

Synonyms—*Totanus incanus*; *Heteroscelus brevipes*.

Status—Common migrant and, at least southerly, winter visitant, on rocky ocean shores. Recorded all through the summer, though these overlapping occurrences are probably either of late northbound or early southbound individuals. It is possible that non-breeders do not go north to the breeding grounds of the species at all. Especially numerous, and occurring all the year, around the various members of the Santa Barbara group of islands.

**153 (261) *Bartramia longicauda* (Bechstein)**

UPLAND PLOVER

Synonym—Bartramian Sandpiper.

Status—Rare fall migrant; only one record; bird shot at Tule Lake, Modoc or Siskiyou County, by Vernon Bailey, August 8, 1896 (Cooke, U. S. Biol. Surv., Bull. no. 35, 1910, p. 65). Upon inquiry I am informed by Mr. W. W. Cooke that the specimen was not saved, though a wing was mailed to Washington to ensure correctness of the field identification. This fragment was examined by Dr. A. K. Fisher, but was not preserved.

**154 (263) *Actitis macularius* (Linnaeus)**

SPOTTED SANDPIPER

Synonyms—*Totanus macularius*; *Tringoides macularius*.

Status—Abundant migrant throughout the state. Remains through the summer and breeds commonly along streams and lakes of the Sierra Nevada region, south at least as far as Cottonwood Lakes, 11000 feet altitude, Sierra Nevada, Inyo County (Mus. Vert. Zool.). Many nesting records for Lassen

County and the vicinity of Lake Tahoe. Breeds also, but sparingly and locally, along the larger streams of the coast belt, south as far as Santa Paula, Ventura County (Willett, Pac. Coast Avif. no. 7, 1912, p. 39). Remains through the winter in numbers along the seacoast of the San Diegan district and adjacent islands.

**155 (264)                      *Numenius americanus* Bechstein**

LONG-BILLED CURLEW

Synonym—*Numenius longirostris*.

Status—Common as a breeding species in the Modoc region of northeastern California, at least as far south as Butte Valley, Plumas County (Feilner, Ann. Rep. Smiths. Inst., 1865, pp. 423, 428). Although recorded from the San Joaquin Valley in June, actual breeding west of the Sierras has not been established. Fairly common as a migrant both east and west of the Sierras, though not recorded near the seacoast north of the San Francisco Bay region. Occurs through the winter in the San Diegan district, in the San Joaquin Valley (Tyler, Pac. Coast Avif. no. 9, 1913, p. 30), in the vicinity of San Francisco Bay, and occasionally in the Sacramento Valley (Belding, MS). Far less numerous now than formerly.

**156 (265)                      *Numenius hudsonicus* Latham**

HUDSONIAN CURLEW

Synonym—Short-billed Curlew.

Status—Abundant spring and fall migrant along the seacoast. Perhaps a few pass the winter southerly; for instance, Santa Cruz Island, December (Linton, Condor, x, 1908, p. 126). Occurs as a transient through the interior, especially in spring: Buena Vista Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 24); Marysville (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 441); Stockton (Belding, MS); Rancho Dos Rios, Stanislaus County (J. Mailliard, MS); Los Baños, Merced County (Mus. Vert. Zool.); Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 121); Fresno District (Tyler, Pac. Coast Avif. no. 9, 1913, p. 30).

**157 (270)                      *Squatarola squatarola* (Linnaeus)**

BLACK-BELLIED PLOVER

Synonyms—*Squatarola helvetica*; *Charadrius helveticus*; *Charadrius squatarola*; Swiss Plover.

Status—Common spring and fall migrant along the seacoast. Occurs irregularly through the interior: Stockton (Belding, MS); Madera County (J. Mailliard, Condor, II, 1900, p. 122); Los Baños, Merced County (Mus. Vert. Zool.). Winters coastwise in small numbers, even as far north as mouth of Eel River, December (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 199), and casually interiorly, at Los Baños, Merced County (Mus. Vert. Zool.).



**158 (272) Charadrius dominicus dominicus Müller**

## AMERICAN GOLDEN PLOVER

Synonyms—*Pluvialis virginica*; *Charadrius virginicus*; Bull-head.

Status—Rather rare as a fall migrant coastwise, with specific record stations as follows: San Francisco (Suckley, Pac. R. R. Rep., XII, 1860, p. 229); Menlo Park and Vallejo (Kobbe, Bailey's Handbook Bds., 1902, p. 1); Santa Cruz, October 22 (Cooke, U. S. Biol. Surv., Bull. no. 35, 1910, p. 84); San Diego Bay near Coronado, one individual, January 12 to 20 (Torrey, Condor, XI, 1909, p. 207).

**159 (273) Oxyechus vociferus vociferus (Linnaeus)**

## KILLDEER

Synonyms—*Aegialitis vocifera*; *Charadrius vociferus*.

Status—Abundant resident of suitable localities throughout the state west of the Sierran divide and below the level of heavy snow; occurs commonly also in appropriate localities east of the Sierras, but chiefly or exclusively in summer. The most widespread and numerous wader breeding within the state.

**160 (274) Aegialitis semipalmata (Bonaparte)**

## SEMPALMATED PLOVER

Synonyms—*Aegialeus semipalmatus*; Ring Plover.

Status—Fairly common as a migrant coastwise; occurs through the winter sparingly on the coast of the San Diegoan district: San Diego, in winter up to April 23 (Belding, MS); San Pedro, October 17 (Grinnell coll.); southern California in winter (Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 81). A few records of occurrence during migration in the interior are: Webber Lake, Sierra County, August 5 (Belding, MS); Fresno district (Tyler, MS); Julian, San Diego County, April 16 (Belding, MS); Salton Sea, Imperial County, April 22 (Mus. Vert. Zool.).

**161 (278) Aegialitis nivosa Cassin**

## SNOWY PLOVER

Synonyms—*Charadrius cantianus*; *Aegialitis cantiana nivosa*; *Aegialitis cantiana*; *Aegialitis alexandrina nivosa*; *Charadrius melodus* (?).

Status—Common resident at many points along the seacoast, particularly from Monterey Bay south to the Mexican line; many breeding records, north to Pescadero, San Mateo County (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 28); breeds also near Eureka, Humboldt County (J. and J. W. Mailliard coll.). Occurs sparingly in the interior, where recorded from vicinity of Los Baños, Merced County (Mus. Vert. Zool.), Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 25), Buena Vista Lake (Linton, Condor; X, 1908, p. 197; Lamb and Howell, Condor, XV, 1913, p. 117), and Salton Sea, at Mecca and in Imperial County (Mus. Vert. Zool.). Recorded also from several of the Santa Barbara group of islands.

**162 (280) Ochthodromus wilsonius wilsonius (Ord)**

## WILSON PLOVER

Synonyms—*Aegialitis wilsonia*; *Charadrius wilsoni*.

Status—Rare visitant southerly. Recorded from "California" several times, as by Seebohm (Geog. Dist. Charadriidae, 1887, p. 154). But only one definite record: adult male specimen (now in Grinnell coll.) taken at Pacific Beach, San Diego County, June 29, 1894 (Ingersoll, Nidiologist, II, 1895, p. 87).

**163 (281) Podasocys montanus (Townsend)**

## MOUNTAIN PLOVER

Synonyms—*Aegialitis montana*; *Eudromias montanus*; *Charadrius montanus*; *Aegialitis asiaticus* var. *montanus*; Rocky Mountain Plover.

Status—Fairly common as a winter visitant to the San Joaquin and Sacramento valleys: recorded north to Marysville (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 440), west to Concord, Contra Costa County (Mus. Vert. Zool.), Oakland (Belding, MS), and Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 121); also in the San Diegan district from Saticoy, Ventura County (J. G. Cooper, Auk, IV, 1887, p. 91), southeast to Santa Ana (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 28), Riverside (Mus. Vert. Zool.), and San Diego (Mus. Vert. Zool.). Noted casually on San Clemente Island (Breninger, Auk, XXI, 1904, p. 222).

**164 (282) Aphriza virgata (Gmelin)**

## SURF-BIRD

Synonym—*Strepsilas virgata*.

Status—Fairly common spring and fall migrant, appearing chiefly on rocky portions of the seashore. Recorded from the following stations: Bodega Bay (Belding, MS); Farallon Islands, June (Heermann, Pac. R. R. Rep., x, 1859, p. 64; H. B. Kaeding, Condor, v, 1903, p. 127); Berkeley, October 24 (Cooke, U. S. Biol. Surv., Bull. no. 35, 1910, p. 95); Santa Cruz, April (J. and J. W. Mailliard, MS); vicinity of Monterey, May and August (Loomis, Proc. Calif. Acad. Sci., 2nd ser., v, 1895, p. 224; Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 71); San Miguel and San Nicolas islands (Willett, Pac. Coast Avif. no. 7, 1912, p. 41); Santa Barbara and Santa Barbara Island (Baird, Brewer, and Ridgway, Water Bds. N. Amer., I, 1884, p. 127; Henshaw, Rep. Wheeler Surv., 1876, p. 270); Santa Barbara, September 16 (Bowles and Howell, Condor, XIV, 1912, p. 11); Santa Barbara, May 3 (Dawson, Condor, XIV, 1912, p. 224; *ibid.*, xv, 1913, p. 5); Pacific Beach, San Diego County, September (Bishop, Condor, VII, 1905, p. 141). Also near Monterey, January 12 (two specimens in Mus. Vert. Zool.).

**165 (283a) Arenaria interpres morinella (Linnaeus)**

## RUDDY TURNSTONE

Synonyms—*Arenaria interpres*; *Arenaria morinella*; *Strepsilas interpres*.

Status—Fairly common as a spring and fall migrant along the seacoast and

around the adjacent islands (many records). Occurs rarely also in midwinter: San Francisco Bay, December and January (J. Mailliard, Condor, vi, 1904, p. 16).

**166 (284)                    *Arenaria melanocephala* (Vigors)**

BLACK TURNSTONE

Synonym—*Strepsilas melanocephalus*.

Status—Common throughout the year on the more rocky and exposed portions of the seacoast the whole length of the state (many records); occasional on shores of San Francisco and Tomales bays (J. and J. W. Mailliard, MS). Although observed throughout the summer, the individuals concerned are to be considered either as late northbound migrants, early arrivals, or possibly as non-breeders which do not follow the main bulk of the species to their far northern nesting grounds, but remain south all summer.

**167 (286.1)                    *Haematopus frazari* Brewster**

FRAZAR OYSTER-CATCHER

Synonyms—*Haematopus palliatus*; Pied Oyster-catcher.

Status—Occurred formerly as a fairly common summer visitant along rocky portions of the seacoast of the San Diegan district. Recorded from definite localities as follows: San Diego, and Santa Barbara Island, breeding, according to J. G. Cooper (Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 112); coast of Ventura County (Evermann, Auk, iii, 1886, p. 92). There are in Mus. Vert. Zool. two skins (nos. 4488, 4489), both adult females, taken by J. G. Cooper at San Diego, May 16, 1862, and at Santa Barbara Island, June 2, 1863; these are probably the basis, in part at least, of Cooper's statement as above. The only recent record is that of a single individual seen at Santa Catalina Island, February 12, 1910 (Osburn, Condor, xiii, 1911, p. 76). While there are no other instances of late occurrence, there is no reason to suppose that the species does not exist at certain remote points along the coast of southern California, or that individuals may not wander northward from the Lower Californian coast, where the species is known to occur regularly at the present time as far north as Los Coronados Islands, just south of the Mexican line.

**168 (287)                    *Haematopus bachmani* Audubon**

BLACK OYSTER-CATCHER

Synonyms—*Haematopus townsendi*; *Haematopus ater*; *Haematopus niger*; Bachman Oyster-catcher.

Status—Common resident on the more exposed and rocky portions of the seacoast and adjacent islands. Known to breed at many points, from the coast of Monterey County near Point Pinos (Jenkins, MS) south to San Clemente Island (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1870, pp. 79, 81). The only locality of known occurrence north of the Farallon Islands and Point Reyes is Trinidad, Humboldt County (Mus. Vert. Zool.).

169 (292)

**Oreortyx picta picta** (Douglas)

PAINTED QUAIL

Synonyms—*Callipepla picta*, part; *Oreortyx picta plumifera*, part; *Ortyx picta*, part; Mountain Partridge; Mountain Quail, part.

Status—Common resident of the Transition and Boreal zones in parts of the narrow humid coast belt, at least from Humboldt County south to Sonoma County; also sparingly south of San Francisco Bay in the Santa Cruz Mountains (McGregor, Pac. Coast Avif. no. 2, 1901, p. 5), and in the coast ranges of Monterey County: several record stations, south to Big Creek (Jenkins, Condor, VIII, 1906, p. 125). Monterey County specimens examined are so nearly intermediate between *picta* and *plumifera*, that they might with equal propriety be referred to under the latter name. Easternmost records at the north: Helena, Trinity County (L. Kellogg, Condor, XIII, 1911, p. 119), and Mt. Sanhedrin (Mus. Vert. Zool.).

170 (292a)

**Oreortyx picta plumifera** (Gould)

MOUNTAIN QUAIL

Synonyms—*Callipepla picta*, part; *Ortyx picta*, part; *Ortyx plumifera*; *Oreortyx picta*, part; *Oreortyx picta confinis*; Plumed Partridge; Plumed Quail; San Pedro Quail.

Status—Abundant resident of semi-arid and arid parts of the Transition zone almost throughout the state: In northern California, along the inner coast ranges from Mt. St. Helena (W. K. Fisher, Condor, II, 1900, p. 136) north to the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 6); thence east through the Shasta and Modoc regions to the Warner Mountains (Mus. Vert. Zool.); south along both slopes of the Sierra Nevada to the Tehachapi Mountains (Belding, Land Bds. Pac. Dist., 1890, p. 9); also on the desert ranges east and south of Owens Valley: Panamint, Inyo, Argus and Coso mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 26); in the southern coast ranges from the Santa Ynez Mountains of Santa Barbara County (Streator, Orn. & Ool., XI, 1886, p. 67) and Mt. Pinos, Ventura County (J. Grinnell, Auk, XXII, 1905, p. 381) southeast throughout the Sierra Liebre, San Gabriel, San Bernardino and San Jacinto ranges to the Santa Rosa (Mus. Vert. Zool.), Palamar (McGregor, Bull. Cooper Orn. Club, I, 1899, p. 67) and neighboring mountains; also through the Cuyamacas (J. G. Cooper, Amer. Nat., VIII, 1874, p. 17), to Campo (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 276) and Mountain Spring (Mus. Vert. Zool.), the last two localities being close to the Mexican line in San Diego County. There is a slight vertical migration of this quail in the Sierra Nevada (Belding, Zool., III, 1892, p. 233). On the eastern bases of the southern ranges this quail occurs about springs well out onto the desert.

The mountain quail inhabiting extreme southern California has been persistently referred to another form, *O. p. confinis*; but examples at hand in fresh fall plumage, from the Cuyamaca and adjacent mountains close to the Mexican line, show themselves to be identical with the bird of the central Sierra Nevada. (See Grinnell and Swarth, Univ. Calif. Publ. Zool., X, 1913, pp. 229-230.)

**171 (294)      *Lophortyx californica californica* (Shaw)**

## CALIFORNIA QUAIL

Synonyms—*Tetrao californicus*; *Callipepla californica*, part; *Ortyx californica*, part; *Lophortyx californica vallicola*, part; *Lophortyx californica brunescens*; California Partridge, part.

Status—Abundant resident of the Upper Sonoran and Transition zones in the narrow northwest humid belt south to southern Monterey County. The range of this race includes the whole San Francisco Bay region east to Mt. Diablo.

**172 (294a)      *Lophortyx californica vallicola* (Ridgway)**

## VALLEY QUAIL

Synonyms—*Callipepla californica*, part; *Ortyx californica*, part; *Lophortyx californica*, part; *Perdix californica*; *Callipepla californica vallicola*; Valley Partridge; California Partridge, part.

Status—Abundant resident of semi-arid parts of the Upper and Lower Sonoran zones through the state east of the northwest humid coast belt, and west of the Mohave and Colorado deserts; occurs commonly in portions of the Modoc region of extreme northeastern California, in Shasta Valley, and south along the east slope of the Sierra Nevada to Owens Valley, and to the desert ranges to the eastward: Inyo, Coso, Argus and Panamint Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 28); occurs also out onto the deserts east of the southern coast ranges, as in Antelope Valley, northern Los Angeles County (A. K. Fisher, *loc. cit.*), along the Mohave River at least to Victoryville (J. Mailliard and J. Grinnell, Condor, VII, 1905, p. 74), and at Palm Springs, Riverside County (many records). The species has been introduced at points where it may not have existed through natural means; as on San Clemente Island. The area of intergradation between *L. c. vallicola* and *L. c. californica* is not well known, but it is probably in a rather narrow belt paralleling the northern humid coast belt and, save for a wider interior detour around the San Francisco Bay region, does not extend more than forty miles from the seacoast. The range of *vallicola* meets the seacoast from San Luis Obispo County southward. The active policy of the State Game Commission in restocking depleted regions with quail from remote areas is doubtless resulting in upsetting the original racial relationships of the quail in the regions affected. Specimens at hand of good *vallicola* from Marin County may be accounted for in this way.

**173 (—)      *Lophortyx californica catalinensis* Grinnell**

## CATALINA ISLAND QUAIL

Synonyms—*Lophortyx californica*, part; *Callipepla californica vallicola*, part; *Lophortyx californica vallicola*, part.

Status—Common resident on Santa Catalina Island. (See J. Grinnell, Auk, XXIII, 1906, p. 262; and Condor, x, 1908, p. 94).

174 (295)

**Lophortyx gambeli gambeli** Gambel

## DESERT QUAIL

Synonyms—*Callipepla gambeli*; *Callipepla gambeli deserticola*; Gambel Partridge; Gambel Quail; Arizona Quail.

Status—Abundant resident locally (in the vicinity of streams or springs) on the Colorado and Mohave deserts. Recorded north to Amargosa and Death valleys (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 29); west across the Mohave desert to Hesperia (Thurber, Auk, XIII, 1896, p. 265), and in the Colorado desert to the north flank of the Santa Rosa Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 232), and through San Geronio Pass to Banning (Gilman, Condor, ix, 1907, p. 148). Recorded casually from Los Angeles (J. Grinnell, Bds. Los Angeles Co., 1898, p. 19), and San Bernardino (Wall, Auk, x, 1893, p. 204). Along the western edge of its range this quail occurs at many points on common ground with *L. c. vallicola*; several hybrid examples between the two species have been recorded. Efforts have been made to introduce the desert quail into northern California, as at Folsom, Sacramento County (Belding, Land Bds. Pac. Dist., 1890, p. 8); but the birds liberated have always promptly disappeared—as was to be expected!

175 (297a)

**Dendragapus obscurus fuliginosus** (Ridgway)

## SOOTY GROUSE

Status—Fairly common locally in the semi-humid northwestern corner of the state. Specimens examined from Hay Fork, Trinity County (L. Kellogg, Condor, XIII, 1911, p. 119), and Kuntz, Trinity County (Mus. Vert. Zool.), show themselves to be distinctly of the northwest coast form as contrasted with that of the Sierra Nevada. Grouse occur near the coast at Seaview, Sonoma County (J. and J. W. Mailliard, MS); probably *fuliginosus*, but specimens not yet obtained and compared.

176 (297c)

**Dendragapus obscurus sierrae** Chapman

## SIERRA GROUSE

Synonyms—*Tetrao obscurus*; *Canace obscura*; *Dendragapus obscurus*; *Dendragapus fuliginosus*; *Dendragapus obscurus fuliginosus*; Sooty Grouse, part; Dusky Grouse.

Status—Common resident of coniferous timber in the upper Transition and Canadian zones of northern California from Mount Shasta south along the inner coast ranges at least to Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 580; Mus. Vert. Zool.), and along the Sierra Nevada south through the Mount Whitney region to the Piute Mountains, Kern County (C. H. Richardson, Condor, vi, 1904, p. 135). Also on the Warner Mountains of Modoc County (Mus. Vert. Zool.), on the White Mountains, Mono County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 30), and on Mount Pinos, Ventura County (A. K. Fisher, *loc. cit.*; probably Henshaw, Rep. Wheeler Surv., 1876, p. 266; J. Grinnell, Auk, XXII, 1905, p. 382; and Willett, Pac. Coast Avif. no. 7, 1912, p. 43).

177 (300c) **Bonasa umbellus sabini** (Douglas)

## OREGON RUFFED GROUSE

Synonyms—*Tetrao sabini*; *Bonasa umbellus*; *Bonasa sabini*; Oregon Grouse.

Status—Fairly common locally in timbered portions of the humid Transition zone in the extreme northwestern corner of the state, south to the vicinity of Humboldt Bay (Townsend, Auk, III, 1886, p. 491; and many later records), and east into the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 6).

178 (308a) **Pediocetes phasianellus columbianus** (Ord)

## COLUMBIAN SHARP-TAILED GROUSE

Synonyms—*Tetrao phasianellus*; *Tetrao columbianus*; *Pediocetes columbianus*; Prairie Chicken.

Status—Occurred formerly as a fairly common resident on the Transition plains of the Modoc region: Canoe Creek, 50 miles northeast of Fort Reading, and upper Pitt River (Newberry, Pac. R. R. Rep., VI, 1857, p. 94); Camp Bidwell (Henshaw, Rep. Wheeler Surv., 1879, p. 317). No information is at hand confirming its existence within the state at the present time.

179 (309) **Centrocercus urophasianus** (Bonaparte)

## SAGE-HEN

Synonyms—*Tetrao urophasianus*; Sage-cock; Cock-of-the-plains.

Status—Fairly common resident of an arid (sage-brush) part of the Transition zone, from Modoc County as far west as shores of Rhett (or Tule) Lake (Newberry, Pac. R. R. Rep., VI, 1857, p. 95) south along east base of the Sierra Nevada through Lassen County (Townsend, Proc. U. S. Nat. Mus., X, 1887, p. 200), Sierra and Alpine counties (Belding, Land Bds. Pac. Dist., 1890, p. 19), to head of Owens River and White Mountains, in Mono County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 31). The single record from the Mohave River, San Bernardino County (J. G. Cooper, Amer. Nat., III, 1869, p. 188; J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1868, p. 13), if authentic, indicates occurrence, formerly or casually, far out of the known present range of the species.

180 (312) **Columba fasciata fasciata** Say

## BAND-TAILED PIGEON

Synonym—*Columba monilis*.

Status—Common but irregular winter visitant throughout the state west of the Sierran divide and below the level of heavy snow, south through the San Diegan district. Appears locally in large flocks, particularly in the oak and chaparral belts. Of late years becoming notably less numerous. Occurs through the summer, breeding locally in small numbers, in the Transition zone along both the Sierras and Coast Ranges, south as far as Pine Mountain, San Diego County (Sharp, Condor, V, 1903, p. 16), and Laguna Mountains, San Diego County (F. Stephens, Condor, XV, 1913, p. 129). It appears that the entire pigeon popula-

tion of the Pacific Coast region of the United States concentrates in winter into west-central and southern California, but that within this area there is much vacillation in numbers from year to year locally, due to varying food-supply in different places. (For full account, see J. Grinnell, Condor, xv, 1913, pp. 25-40).

**181 (316a) Zenaidura macroura marginella (Woodhouse)**

WESTERN MOURNING DOVE

Synonyms—*Columba carolinensis*; *Ectopistes carolinensis*; *Zenaidura carolinensis*; *Zenaidura macroura*; *Zenaidura macroura carolinensis*; Common Dove; Carolina Dove.

Status—Abundant in spring, summer and fall in the Lower and Upper Sonoran zones, and in small numbers up through Transition. Occurs practically throughout the state save on the highest mountains; arid and humid belts are equally inhabited, and even the islands farthest out to sea. Winters commonly in the valleys of the San Diegan district, and in small numbers irregularly north through the central California valleys west of the Sierras.

**182 (319a) Melopelia asiatica trudeau (Audubon)**

WHITE-WINGED DOVE

Synonyms—*Melopelia leucoptera*; *Melopelia asiatica*.

Status—Fairly common summer visitant to the California side of the lower Colorado River below the Laguna Dam (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 123; Morcom, Ridgw. Orn. Club, Bull. no. 2, 1887, p. 40); recorded also farther up the river: Ehrenberg and Needles (F. Stephens, Condor, v, 1903, p. 77); and, perhaps doubtfully, from Twenty-nine Palms, Mohave Desert (Heller, Condor, iii, 1901, p. 100). Specimen, doubtless a straggler, taken near Escondido, San Diego County, about September 25, 1911 (J. S. Dixon, Condor, xiv, 1912, p. 196).

**183 (320a) Chaemepelia passerina pallescens Baird**

MEXICAN GROUND DOVE

Synonyms—*Chamaepelia passerina*; *Columbigallina passerina*.

Status—Rare and irregular visitant southerly. Recorded only as follows: Fort Yuma (Cones, Proc. Acad. Nat. Sci. Phila., 1866, p. 93); Colorado River near Ehrenberg, in August (F. Stephens, Condor, v, 1903, p. 77); San Gabriel ("several"), Monterey, and San Francisco, May (Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., iii, 1874, pp. 390, 522); Banning, Riverside County, in October, and San Pasqual, San Diego County (Willett, Pac. Coast Avif. no. 7, 1912, p. 44); Pescadero, San Mateo County, a flock and one specimen obtained, February 27, 1898 (Littlejohn, Bull. Cooper Orn. Club, i, 1899, p. 73).

**184 (324) Gymnogyps californianus (Shaw)**

CALIFORNIA CONDOR

Synonyms—*Sarcoramphus californianus*; *Vultur californianus*; *Oenops*



*californianus*; *Cathartes californianus*; *Pseudogryphus californianus*; California Vulture.

Status—Formerly common through the state west of the Great Basin and desert territory, from Tehama County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 201) south along the west slope of the Sierras, and south from San Francisco Bay through the coast ranges and throughout the San Diegan district to the Mexican line. Easternmost record, Owens Valley between Big Pine and Bishop Creek (Van Denburgh, Proc. Acad. Nat. Sci. Phila., 1898, p. 208). The record from Fort Yuma (Coues, Proc. Acad. Nat. Sci. Phila., 1866, p. 42), if not to be doubted, can only be considered as casual. At the present time the Condor is probably restricted to a limited area comprising the coast ranges from Monterey and San Benito counties south to Los Angeles County, and northeast through the mountains encircling the southern end of the San Joaquin Valley into northeastern Kern County; possibly as far north along the western foothills of the Sierra Nevada as Fresno County (Tyler, Pac. Coast Avif. no. 9, 1913, p. 37). Even in this area the species is not numerous and at best is barely holding its own.

185 (325) **Cathartes aura septentrionalis** Wied

TURKEY VULTURE

Synonyms—*Oenops aura*; *Rhinogryphus aura*; *Cathartes aura*; Turkey Buzzard.

Status—Common in spring, summer, and autumn throughout the state save in the highest mountains; most abundant in the San Diegan district and through the interior valleys. Breeds chiefly if not altogether in the Upper Sonoran zone. Remains throughout the winter in small numbers in the San Diegan district, and at the north interiorly at least to Vaca Valley, Solano County (Mus. Vert. Zool.).

186 (328) **Elanus leucurus** (Vieillot)

WHITE-TAILED KITE

Synonyms—*Elanus dispar*; *Elanus glaucus*; Black-shouldered Hawk; White-tailed Hawk.

Status—Formerly common resident of Upper Sonoran valleys west of the Sierras; recorded from Red Bluff, Tehama County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 201) and Forestville, Sonoma County (J. Grinnell, Condor, xvi, 1914, p. 41) south into the San Diegan district where the southernmost record-stations are Alamitos, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 20), and San Diego (Willett, Pac. Coast Avif. no. 7, 1912, p. 46). In the coast region the species has been recorded as far north as Sebastopol, Sonoma County (Belding, Land Bds. Pac. Dist., 1890, p. 27). It used to be particularly numerous around San Francisco Bay; but it is now everywhere very much reduced in numbers and restricted in range, with promise of early extinction.

187 (331) **Circus hudsonius** (Linnaeus)

MARSH HAWK

Synonyms—*Circus uliginosus*; *Circus cyaneus* var. *hudsonius*; Harrier.

Status—Common winter visitant to valleys and marsh lands throughout the state. Remains through the summer locally in the Modoc region and at various points west of the desert divide east and south of the humid coast belt. Recorded (many instances) as nesting in the San Joaquin Valley, and south through the San Diegan district to the vicinity of San Diego (J. G. Cooper, Proc. U. S. Nat. Mus., II, 1880, p. 251).

188 (332) **Accipiter velox** (Wilson)

SHARP-SHINNED HAWK

Synonyms—*Astur fuscus*; *Nisus fuscus*; *Accipiter fuscus*; *Accipiter velox rufilatus*.

Status—Common winter visitant throughout the state below the Boreal zone. Remains through the summer sparingly in Transition; recorded south in the coast belt as far as Carmel River, Monterey County, nesting (J. Grinnell, MS), and through the Sierras and mountains of southern California to the San Bernardino Mountains (Willett, Pac. Coast Avif. no. 7, 1912, p. 46), and even probably the San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 235).

189 (333) **Accipiter cooperi** (Bonaparte)

COOPER HAWK

Synonyms—*Astur cooperi*; *Nisus cooperi*; *Nisus cooperi* var. *mexicanus*; *Accipiter mexicanus*; *Accipiter cooperi mexicanus*; Mexican Hawk.

Status—Common resident locally below the Boreal zone, almost throughout the state. Many breeding records, south to Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 86) and the valley of the Colorado River above Yuma (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 124). Recorded also from Santa Cruz Island (Howell and Van Rossem, Condor, XIII, 1911, p. 209). Nests in both the valleys and mountains, in the latter up to 6500 feet altitude. The species breeds through three life zones: Lower and Upper Sonoran, and Transition.

190 (334a) **Astur atricapillus striatulus** Ridgway

WESTERN GOSHAWK

Synonyms—*Accipiter atricapillus striatulus*; *Astur atricapillus*; *Astur palumbarius* var. *striatulus*; American Goshawk.

Status—Rare in summer in the Boreal zone on the Warner Mountains (Mus. Vert. Zool.), Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 201), the Sierra Nevada south to Kaweah River, Tulare County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 37), and on the northern coast ranges south to Mount Sanehedrin, Mendocino County (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 580). Occurs more widely but not commonly through northern California in winter; recorded southwest of the Sierras to Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 122), and even to West Rialto, San Bernardino County (Grey, Condor, xv, 1913, p. 129).

**191 (335)           Parabuteo unicinctus harrisi** (Audubon)

## HARRIS HAWK

Status—Summer visitant to the valley of the lower Colorado River; two records for the California side: specimen shot and two others seen near Ehrenberg, in August, 1902 (F. Stephens, Condor, v, 1903, p. 77); specimen taken by L. Wiley, 1¼ miles south of Palo Verde, November 1, 1914 (Mus. Vert. Zool.). Also specimen taken in Mission Valley, near San Diego, November 17, 1912, now in collection of San Diego Society of Natural History (Grey, Condor, xv, 1913, p. 128).

**192 (337b)           Buteo borealis calurus** Cassin

## WESTERN RED-TAILED HAWK

Synonyms—*Buteo borealis*; *Buteo calurus*; *Buteo montanus*; *Buteo harlani*, part; *Buteo borealis socorroensis*; Red-tailed Black Hawk; Harlan Hawk, part.

Status—Common resident almost throughout the state, breeding from Lower Sonoran up at least through Transition. Recorded from deserts, islands, lowest valleys and highest mountain ranges, from most arid to rainiest belts. Evidently a species lacking in sensitiveness to climatic conditions.

**193 (339b)           Buteo lineatus elegans** Cassin

## RED-BELLIED HAWK

Synonyms—*Buteo lineatus*; *Buteo elegans*; Elegant Hawk.

Status—Common resident locally below Transition and west of the desert divide; occurs chiefly in the San Joaquin-Sacramento Valley, and in the lowlands of the San Diegan district. Many breeding records in the latter region, and several in the west-central part of the State. Northernmost records at any season: Point Reyes, Marin County (J. and J. W. Mailliard, MS), Mount Saint Helena (W. K. Fisher, Condor, II, 1900, p. 136), and Fort Crook, Shasta County (Townsend, Proc. U. S. Nat. Mus., x., 1887, p. 202).

**194 (340)           Buteo abbreviatus** Cabanis

## ZONE-TAILED HAWK

Synonyms—*Buteo zonocercus*; *Tachytriorchis abbreviatus*; *Urubitinga an-thracina*; Band-tailed Black Hawk.

Status—Rare visitant to Lower Sonoran in the extreme southern portion of the San Diegan district; three records: specimen taken near San Diego in "March" (really February 23), 1862 (J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1868, p. 7); male taken at National City, near San Diego, November 26, 1906 (Linton, Condor, x, 1908, p. 181); specimen taken near coast thirty miles north of San Diego, September 10, 1907 (J. Grinnell, Condor, XI, 1909, p. 69). The first and third specimens are now in Mus. Vert. Zool., nos. 4375, 5494, respectively; the second is in the Thayer Museum.

195 (342)

**Buteo swainsoni** Bonaparte

## SWAINSON HAWK

Synonyms—*Buteo insignatus*; *Buteo obsoletus*; *Buteo harlani*, part; Brown Hawk; Swainson Buzzard; Harlan Hawk, part.

Status—Common in summer through the interior valleys west of the desert divide and south and east of the humid coast belt; many breeding records for the San Diegan district, south to Escondido, and for the San Joaquin-Sacramento basin. Recorded north to Shasta Valley, Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 112), and east to Independence Lake, Nevada County (Mus. Vert. Zool.); casually to Santa Cruz Island (Howell and Van Rossem, Condor, XIII, 1911, p. 209). The zonal preference of this species in California would appear to be Upper Sonoran, though in late summer families of adults and young invade high up even into the Canadian zone. This is our only hawk which migrates probably wholly out of the state for the winter. There is but one winter record, not verified: San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 36).

196 (347a)

**Archibuteo lagopus sancti-johannis** (Gmelin)

## AMERICAN ROUGH-LEGGED HAWK

Synonyms—*Archibuteo lagopus*; *Archibuteo sancti-johannis*; St. John Black Hawk.

Status—Sparingly mid-winter visitant to the northern section of the state. Reliable records are few; the southernmost appear to be: Berryessa, Santa Clara County (Barlow, Condor, II, 1900, p. 131); San Jose (Mus. Vert. Zool.); Stockton, and Big Trees, Calaveras County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 436); plains southwest of Fresno (Tyler, Pac. Coast Avif. no. 9, 1913, p. 43); and Lake Tahoe (Henshaw, Rep. Wheeler Surv., 1877, p. 1320).

197 (348)

**Archibuteo ferrugineus** (Lichtenstein)

## FERRUGINOUS ROUGH-LEGGED HAWK

Synonyms—*Falco ferrugineus*; *Buteo californica*; *Buteo sancti-johannis*; *Archibuteo lagopus sancti-johannis*, part; Rusty Squirrel Hawk; California Squirrel Hawk.

Status—Formerly common as a transient and winter visitant to the valleys west of the desert divide, from the San Diegan district (several instances, including a specimen in Mus. Vert. Zool., taken by J. G. Cooper near San Diego), north to Cotati, Sonoma County (Mus. Vert. Zool.) and head of Sacramento Valley. Has occurred also northeast of the Sierras (Henshaw, Rep. Wheeler Surv., 1879, p. 315), and casually on the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 45). Now notably scarce or altogether wanting in all regions from which recent reports have been made. There is one breeding record: Consumnes River (Heermann, Pac. R. R. Rep., X, 1859, p. 32), not altogether trustworthy.

198 (349) **Aquila chrysaetos** (Linnaeus)

## GOLDEN EAGLE

Synonyms—*Aquila canadensis*; *Aquila chrysaetos canadensis*; Ring-tailed Eagle; American Golden Eagle.

Status—Common resident locally in the mountains and valleys of the coast district, chiefly south of San Francisco Bay, and south throughout the San Diegan district; also fairly common in the Sierra Nevada, and along the northern inner coast ranges; but rare or wanting east of the Sierran divide, and in the humid coast belt north of Marin County.

199 (352) **Haliaeetus leucocephalus leucocephalus** (Linnaeus)

## SOUTHERN BALD EAGLE

Synonyms—*Falco leucocephalus*; White-headed Eagle.

Status—Common resident among the islands of the Santa Barbara group; resident sparingly along the mainland seacoast at various points south to Orange County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 22), and interiorly in the northern half of the state, even northeast of the Sierras: Eagle Lake (Henshaw, Rep. Wheeler Surv., 1879, p. 315; Sheldon, Condor, ix, 1907, p. 187). Recorded casually south to San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 40), Nevada City (Nelson, Proc. Bost. Soc. Nat. Hist., xvii, 1875, p. 363), and, formerly, along the San Joaquin and Sacramento rivers (Newberry Pac. R. R. Rep., vi, 1857, p. 75). Said to have nested at Sacramento (Heermann, Pac. R. R. Rep., x, 1859, p. 30), in Santa Clara County (J. G. Cooper, Pac. R. R. Rep., xii, 1860, p. 152), and at Elsinore Lake, Riverside County (Heller, Condor, iii, 1901, p. 100).

200 (355) **Falco mexicanus** Schlegel

## PRAIRIE FALCON

Synonyms—*Falco polyagrus*; *Falco lanarius*; *Falco lanarius polyagrus*; *Falco mexicanus* var. *polyagrus*; Prairie Hawk.

Status—Fairly common resident east and south of the humid coast belt, chiefly in the Lower and Upper Sonoran zones of the interior. Recorded as nesting west to Berkeley and Mount Diablo (Keeler, Zoe, ii, 1891, p. 169), and in Santa Clara County. Has occurred casually on the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., i, 1888, p. 45), and interiorly north to the head of the Sacramento Valley (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 202), Shasta Valley, Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 113), and Camp Bidwell, Modoc County (Henshaw, Rep. Wheeler Surv., 1879, p. 314). The metropolis of the species appears to be the southeastern deserts and the arid inner coast ranges west of the San Joaquin Valley.

201 (356a) **Falco peregrinus anatum** Bonaparte

## DUCK HAWK

Synonyms—*Falco anatum*; *Falco peregrinus*; *Falco nigriceps*; *Falco communis* var. *anatum*; *Falco communis* var. *naevius*; Western Duck Hawk.

Status—Fairly common resident among the Santa Barbara Islands and on the precipitous portions of the mainland seacoast to the northward, as at Santa Cruz and Tomales Point (J. and J. W. Mailliard, MS). Has been found breeding also interiorly, as at Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 86); and San Onofre, San Diego County (J. S. Dixon, Condor, viii, 1906, p. 96); also on the Bay marshes of San Mateo County (Littlejohn, MS). Occurs more widely and numerously in winter, invading the valleys generally west of the Sierran divide.

**202 (357)            *Falco columbarius columbarius* Linnaeus**

NORTHERN PIGEON HAWK

Synonyms—*Hypotriorchis columbarius*; *Falco lithofalco*; *Falco lithofalco* var. *columbarius*; *Aesalon columbarius*; Pigeon Hawk.

Status—Fairly common winter visitant south through the whole length of the state chiefly west of the Sierran divide. Two record-stations east of the divide: Little Owens Lake and Death Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 40). While stated to occur in late spring and late summer, no reliable records of actual nesting within the state are known to me.

**203 (357a)            *Falco columbarius suckleyi* Ridgway**

BLACK PIGEON HAWK

Synonyms—*Falco lithofalco* var. *suckleyi*; Black Merlin.

Status—Rare winter visitant. Three recorded instances of occurrence: Yreka, Siskiyou County, October (Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., iii, 1874, p. 147); Wagon Camp, Mount Shasta, August 8 (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 113), identity not quite satisfactory; specimen in Grinnell coll., taken by J. F. Illingworth at Claremont, Los Angeles County, December 6, 1895 (Willett, Pac. Coast Avif. no. 7, 1912, p. 49).

**204 (357b)            *Falco columbarius richardsoni* Ridgway**

RICHARDSON PIGEON HAWK

Synonyms—*Falco columbarius*, part; *Falco richardsoni*; Richardson Merlin.

Status—Rare winter visitant. Three records: immature female taken in Walker Basin, Kern County, August 28, 1875 (Henshaw, Rep. Wheeler Surv., 1876, p. 262); specimen taken in San Fernando Valley, Los Angeles County, October 31, 1903 (Daggett, Condor, vii, 1905, p. 82); immature female taken at Witch Creek, San Diego County, February 9, 1904 (Bishop, Condor, vii, 1905, p. 142).

**205 (360+360a)        *Falco sparverius sparverius* Linnaeus**

AMERICAN SPARROW HAWK

Synonyms—*Falco sparverius*; *Cerchneis sparverius*; *Tinnunculus sparverius*; *Tinnunculus sparveroides*; *Falco sparverius deserticola*; *Falco sparverius phalaena*; Desert Sparrow Hawk.

Status—Common in summer practically throughout the state; abundant in winter below the level of heavy snowfall. Breeds from the hottest parts of the Lower Sonoran zone (Colorado River near Yuma, etc.) up at least through the Canadian zone on the higher mountains, and from the driest deserts to the northern humid coast belt. This hawk is thus one of the few birds of marked indifference to climatic conditions. There is possibly a distinguishable race in the extreme southeastern corner of the state, in the "sahuaro belt" (see Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 126).

**206 (364) Pandion haliaetus carolinensis (Gmelin)**

AMERICAN OSPREY

Synonyms—*Pandion haliaetus*; *Pandion carolinensis*; Fish Hawk.

Status—Breeds commonly about the Santa Barbara group of islands, and sparingly along the mainland coast (at least formerly), as in the vicinity of Santa Cruz (McGregor, Pac. Coast Avif. no. 2, 1901, p. 7), on Russian River, Sonoma County (J. Mailliard, MS), and at Humboldt Bay (W. K. Fisher, Condor, IV, 1902, p. 132); also two definite nesting localities in the interior: Eagle Lake (Sheldon, Condor, IX, 1907, p. 187; Ray, Condor, XVII, 1915, p. 70), Kaweah River, near Woodlake, Tulare County (Tyler, MS). Winters rarely, and only along the seacoast: Farallon Islands, December 15 (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 45); Santa Cruz Island, December (Linton, Condor, X, 1908, p. 127); San Diego, in winter (Belding, Land Bds. Pac. Dist., 1890, p. 46). Occurs more widely, and through the interior, during migration; recorded from Colorado River (several instances), Death Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 41), etc.

**207 (365) Aluco pratincola (Bonaparte)**

AMERICAN BARN OWL

Synonyms—*Strix pratincola*; *Strix perlata*; *Strix flammea pratincola*; *Strix flammea americana*; *Aluco flammeus americanus*; *Tyto perlata pratincola*.

Status—Common resident in suitable portions of the Lower and Upper Sonoran zones practically throughout their extent. Northernmost records: in the coast region, Marin County (J. Mailliard, Condor, II, 1900, p. 63), and Covelo, Mendocino County (Mus. Vert. Zool.); in the Sacramento Valley, Woodland (A. K. Fisher, Hawks and Owls of U. S., 1893, p. 132); east of Sierras, Madeline Plains and Camp Bidwell, Lassen and Modoc counties (Henshaw, Rep. Wheeler Surv., 1879, p. 313). Casual on Santa Cruz Island (Howell and Van Rossem, Condor, XIII, 1911, p. 209), and Anacapa Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 50).

**208 (366) Asio wilsonianus (Lesson)**

LONG-EARED OWL

Synonyms—*Otus wilsonianus*; *Asio americanus*; *Otus vulgaris wilsonianus*; *Nyctalops wilsonianus*; *Otus brachyotus* var. *wilsonianus*.

Status—Common resident locally in the Upper Sonoran zone west and north

of the deserts; most numerous in the bottom lands of the San Diegan district and in the interior valleys of central California. Recorded north in the coast region to Sebastopol, Sonoma County (Belding, Land Bds. Pac. Dist., 1890, p. 47), in the Sacramento Valley to Marysville, Butte County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 433), and east of the Sierras to Fort Crook, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 203), and Goose Lake, Modoc County (Mus. Vert. Zool.). Occurs sporadically up into higher zones on the mountains, as to 9000 feet on San Jacinto Peak (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 238), and Mineral King, southern Sierra Nevada (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 42). Found casually in midwinter on San Clemente Island (Linton, Condor, XI, 1909, p. 194), and breeding on Santa Catalina Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 50).

**209 (367)                      *Asio flammeus* (Pontoppidan)**

SHORT-EARED OWL

Synonyms—*Strigiceps uliginosus*; *Brachyotus palustris*; *Brachyotus casini*; *Otus brachyotus*.

Status—Common migrant and winter visitant to unwooded lowlands chiefly west of the Sierran divide. Its associational predilections are evident from its usual presence in alfalfa-producing districts. Has been recorded east of the Sierras at Mono Lake (W. K. Fisher, Condor, IV, 1902, p. 10) and Mohave River (Heermann, Pac. R. R. Rep., x, 1859, p. 34). Remains through the summer in small numbers on extensive marshy areas, as those around San Diego and San Francisco bays. Recorded definitely as breeding at Los Baños, Merced County (Bishop, Condor, VIII, 1906, p. 29), and New Hope, Fresno County (Tyler, Pac. Coast Avif. no. 9, 1913, p. 49).

**210 (369)                      *Strix occidentalis occidentalis* (Xantus)**

SOUTHERN SPOTTED OWL

Synonyms—*Syrnium occidentale*; *Syrnium nebulosum*; *Strix occidentalis caurina*, part; Western Barred Owl.

Status—Fairly common resident locally below Transition in the San Diegan district, from southern San Diego County northwest to head of Castaic Canyon, Los Angeles County (Peyton, Condor, XII, 1910, p. 122), Ventura County (Dickey, Condor, XVI, 1914, p. 193), and Fort Tejon, Kern County (Xantus, Proc. Acad. Nat. Sci. Phila., 1859, pp. 190, 193). Recorded also along the eastern rim of the San Joaquin Valley, at Big Trees, Calaveras County (Belding, Land Bds. Pac. Dist., 1890, p. 49), Tuolumne County, "alt. 4600" (J. and J. W. Mailliard coll.), and in Fresno County (Tyler, Condor, XI, 1909, p. 82).

**211 (369a)                      *Strix occidentalis caurina* (Merriam)**

NORTHERN SPOTTED OWL

Status—Rare resident of the northern humid coast belt; two instances: Mount Tamalpais, Marin County, May 23, 1896 (J. Grinnell, Condor, XI, 1909, p. 138), and Eureka, Humboldt County, August 28, 1910 (Clay, Condor, XIII, 1911, p. 75). Both specimens are now in Mus. Vert. Zool.



**212 (370)                    *Scotiaptex nebulosa nebulosa* (Forster)**

## GREAT GRAY OWL

Synonyms—*Syrnium cinereum*; *Ulula cinerea*; *Scotiaptex cinerea*.

Status—Rare winter visitant to the north end of the state: recorded from Chico, Butte County (Belding, Land Bds. Pac. Dist., 1890, p. 50), and the "Sacramento Valley" (Newberry, Pac. R. R. Rep., vi, 1857, p. 77); a specimen, now no. 24484, Mus. Vert. Zool., taken September 26, 1913, six miles south of McCloud, Siskiyou County (J. Grinnell, Condor, xvi, 1914, p. 94).

**213 (372)                    *Cryptoglaux acadica* (Gmelin)**

## SAW-WHET OWL

Synonyms—*Nyctala acadica*; *Nyctale albifrons*; *Strix frontalis*; Kirtland Owl; Acadian Owl.

Status—Irrregular winter visitant to forested areas of central California, and south along the higher mountains to Riverside County. Recorded definitely as follows: Sonoma, December 16 (Carriger, Bull. Cooper Orn. Club, i, 1899, p. 73); Point Reyes Station, Marin County, December 11 and 23 (J. Mailliard, Condor, iv, 1902, p. 18); San Geronimo, Marin County, October 28 (J. Mailliard, Condor, x, 1908, p. 94); Santa Cruz (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 13); Monterey (Gambel, Proc. Acad. Nat. Sci. Phila., 1846, p. 47); Lake Tahoe, September 21 (Belding, Land Bds. Pac. Dist., 1890, p. 50); McKinney's Ranch, near Lake Tahoe, August 23 (Belding, Condor, iii, 1901, p. 145); Glen Alpine, Eldorado County, July (Price, Condor, iii, 1901, p. 162); Fyffe, Eldorado County, brood of young May 17 (Ray, Condor, xvi, 1914, p. 65); Bear River, Placer County, February 7 (Adams, Condor, v, 1903, p. 19); Cisco, Placer County, October 6 (Mus. Vert. Zool.); Piute Mountains, Kern County, November 22 (Osburn, Condor, xii, 1910, p. 80); Fort Tejon, Kern County (Baird, Pac. R. R. Rep., ix, 1858, p. 921); Round Valley, San Jacinto Mountains, August 11 (F. Stephens, Condor, iv, 1902, p. 40). As indicated by some of the dates of occurrence, as well as by the single definite breeding record, this owl breeds locally in the Transition and Canadian zones along the Sierra Nevada.

**214 (373c, part)            *Otus asio bendirei* (Brewster)**

## CALIFORNIA COAST SCREECH OWL

Synonyms—*Scops asio*, part; *Scops asio bendirei*, part; *Scops asio* var. *mecalli*, part; *Megascops asio bendirei*, part; *Ephialtes choliba*; Mottled Screech Owl; Mottled Owl.

Status—Common resident of wooded localities in the Transition and Upper Sonoran zones in the humid coast belt south to include the San Francisco Bay region. Recorded definitely from Eureka, Humboldt County (Clay, MS), south to Palo Alto, Santa Clara County (J. Grinnell, Auk, xxxii, 1915, p. 60).

215 (373c, part)

**Otus asio quercinus** Grinnell

## SOUTHERN CALIFORNIA SCREECH OWL

Synonyms—*Scops asio*, part; *Scops asio bendirei*, part; *Scops asio* var. *mccalli*, part; *Megascops asio*; *Megascops asio bendirei*, part; *Otus asio bendirei*, part; *Ephialtes asio*; *Scops trichopsis*.

Status—Common resident of wooded localities, mostly in the Upper Sonoran zone, in southern California (San Diegan district) west of the desert divides and north along the west flank of the Sierra Nevada (probably this race) to the vicinity of Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 114). The areas of intergradation between *quercinus* and the humid coast form *bendirei* probably lie in the vicinity of Monterey County and at the head of the Sacramento Valley (see J. Grinnell, Auk, xxxii, 1915, p. 60). Not definitely recorded from anywhere on the desert or Great Basin slopes.

216 (373i)

**Otus asio gilmani** Swarth

## SAHUARO SCREECH OWL

Synonyms—*Megascops asio cineraceus*; *Otus asio cineraceus*; Arizona Screech Owl.

Status—Common resident along the valley of the lower Colorado River from the neighborhood of Needles to the Mexican boundary (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 128). Probably occurs also in the Imperial Valley (see Van Rossem, Condor, xiii, 1911, p. 131).

217 (374+374a)

**Otus flammeolus** (Kaup)

## FLAMMULATED SCREECH OWL

Synonyms—*Megascops flammeolus*; *Megascops flammeolus idahoensis*; *Otus flammeolus*; *Scops flammeolus*; *Otus flammeolus idahoensis*; Dwarf Screech Owl; Flammulated Owlet.

Status—Rare resident along the Sierra Nevada and on the San Bernardino Mountains; probably breeds in the Canadian zone, dropping to lower levels in winter. Definitely recorded as follows: Fort Crook, Shasta County, one specimen (J. G. Cooper, Orn. Calif., i, 1870, p. 422); Big Trees, Calaveras County, August 16, one specimen (Belding, Proc. U. S. Nat. Mus., v, 1883, p. 549); San Bernardino Mountains, at least five specimens, May, June, July and January (Hasbrouck, Auk, x, 1893, p. 260; T. S. Palmer, Auk, xi, 1894, p. 78; Oberholser, Ornith., x, 1899, [separate, repaged] p. 12; Gilman, Condor, iv, 1902, p. 86; F. Stephens, Condor, iv, 1902, p. 40; J. S. Dixon, Condor, vii, 1905, p. 140; J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 59); Monache Meadows, Sierra Nevada, Tulare County, adult and young, August 4 (Mus. Vert. Zool.). All records of the so-called "Dwarf" Screech Owl are included here, as the status of "*idahoensis*" is questionable (see p. 182).

**218 (375a)                    *Bubo virginianus pallescens* Stone**

## WESTERN HORNED OWL

Synonyms—*Asio magellanicus pallescens*; *Bubo virginianus pacificus*, part; *Bubo virginianus subarcticus*, part.

Status—Common resident on portions of the Mohave and Colorado deserts. Recorded from along the Colorado River from Needles to Yuma (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 129); Imperial Valley (Mus. Vert. Zool.); and along the Mohave River near Victorville (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 74) and near Yermo (Lamb, Condor, xiv, 1912, p. 36). The records from Providence Mountains (F. Stephens, Condor, v, 1903, p. 78), and the Panamint and Argus ranges (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 43), probably pertain to this subspecies also, though there is some doubt.

**219 (375d)                    *Bubo virginianus pacificus* Cassin**

## PACIFIC HORNED OWL

Synonyms—*Strix virginiana*; *Bubo virginianus*; *Bubo virginianus subarcticus*, part; *Bubo virginianus* var. *arcticus*; *Bubo magellanicus*; *Asio magellanicus*; *Asio magellanicus pacificus*; Great Horned Owl.

Status—Common resident throughout the large portion of the state excluding the northwest coast belt and the southeastern desert region. This comprises a diagonal belt from the Modoc region to the San Diegan region, inclusive, and taking in the Sierras, the inner coast ranges and, south of San Luis Obispo County, the coast itself. No subspecies of horned owl is definitely recorded from any of the adjacent islands.

**220 (375e)                    *Bubo virginianus saturatus* Ridgway**

## DUSKY HORNED OWL

Synonyms—*Bubo virginianus subarcticus*, part; *Asio magellanicus icelus*; *Bubo virginianus icelus*; Coast Horned Owl.

Status—Common resident in the humid coast belt, from San Luis Obispo (Oberholser, Proc. U. S. Nat. Mus., xxvii, 1904, p. 185) northward to the Oregon line. The range of this form extends interiorly to include most of the San Francisco Bay region. And there are records of probably casual occurrence from the central Sierra Nevada: Fyffe and Mount Tallac (Barlow & Price, Condor, iii, 1901, p. 162).

**221 (376)                    *Nyctea nyctea* (Linnaeus)**

## SNOWY OWL

Status—Of rare and sporadic occurrence as a midwinter visitant. Recorded as invading the northern coast region in December, 1896, visiting Humboldt and Sonoma counties, and the east side of San Francisco Bay in Alameda County (Cohen, Osprey, i, 1897, p. 71; Cohen, Condor, iii, 1901, p. 185); also one record from Santa Cruz, of occurrence at probably about the same date as above (Thompson, Condor, iii, 1901, p. 141).

**222 (378) Speotyto cunicularia hypogaea (Bonaparte)**

## BURROWING OWL

Synonyms—*Athene socialis*; *Athene cunicularia*; *Athene hypogaea*; *Speotyto hypogaea*; *Speotyto cunicularia*; *Strix cunicularia*; *Speotyto cunicularia obscura*; Ground Owl; Billy Owl.

Status—Common resident of treeless areas below the Transition zone both east and west of the Sierras, excluding certain rocky portions of the southeastern deserts, and the northwest humid coast belt. Occurs regularly on several of the Santa Barbara group of islands; recorded also from the Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 45; Dawson, Condor, XIII, 1911, p. 180). Recorded west of the Sacramento Valley and north of Marin and Sonoma counties only from the vicinity of Mount Saint Helena (W. K. Fisher, Condor, II, 1900, p. 136), and Upper Lake, Lake County (F. Stephens, Auk, XII, 1895, p. 372); both these localities are interiorwards from the humid coast strip proper, from which we have no records north of Marin County.

**223 (379a, part) Glaucidium gnoma californicum Selater**

## CALIFORNIA PIGMY OWL

Synonyms—*Athene infusata*; *Glaucidium passerinum* var. *californicum*, part; *Glaucidium gnoma*, part; *Glaucidium gnoma vigilante*; *Glaucidium gnoma pinicola*; Rocky Mountain Pigmy Owl; Sierra Pigmy Owl.

Status—Fairly common resident along the Sierra Nevada, and San Gabriel and San Bernardino mountains. Probably breeds chiefly in the Transition zone, dropping below to adjacent foothills in winter. The northernmost record station, believed to pertain to this subspecies, is west base of Mount Shasta (Townsend, Proc. U. S. Nat. Mus., X, 1887, p. 204); the southernmost is Escondido, San Diego County (Sharp, Condor, IX, 1907, p. 87).

**224 (379a, part) Glaucidium gnoma grinnelli Ridgway**

## COAST PIGMY OWL

Synonyms—*Glaucidium californicum*; *Glaucidium gnoma*, part; *Glaucidium infuscatum*; *Glaucidium passerinum californicum*, part; *Glaucidium gnoma californicum*, part; California Pigmy Owl, part.

Status—Fairly common resident of humid coast Transition, from Little Sur River, Monterey County (J. Grinnell, Condor, IV, 1902, p. 127) northward through the Santa Cruz, Marin and Humboldt districts. Recorded east, north of the San Francisco Bay region, to the inner coast ranges: Mount Saint Helena (W. K. Fisher, Condor, II, 1900, p. 136), and Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 581). This form occurs possibly south as far as Santa Margarita, San Luis Obispo County (Swarth, Condor, XIII, 1911, p. 163).

**225 (381) Micropallas whitneyi whitneyi (Cooper)**

## ARIZONA ELF OWL

Synonyms—*Micrathene whitneyi*; Whitney Owl.

Status—Resident in a restricted tract of giant cactuses on the California

side of the lower Colorado River above the Laguna Dam, where both the birds and their eggs have been taken (Brown, Condor, vi, 1904, p. 45; J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 129). The record from near San Bernardino (Loomis, Auk, xix, 1902, p. 80) has been questioned (see F. Stephens, Condor, iv, 1902, p. 45). I consider some doubt to pertain also to that from "Kern County" (Ridgway, Condor, iv, 1902, p. 18) .

**226 (385)                    *Geococcyx californianus* (Lesson)**

ROAD-RUNNER

Synonyms—*Leptostoma longicauda*; *Geococcyx affinis*; *Geococcyx viaticus*; *Geococcyx mexicanus*; Chaparral Cuck; Paisano.

Status—Common resident of the Lower and Upper Sonoran zones on both the desert and Pacific slopes. Recorded north, east of the Sierras, to Big Pine, Owens Valley (Van Denburgh, Proc. Acad. Nat. Sci. Phila., 1898, p. 209); north, west of the Sierras, to the head of the Sacramento Valley, nearly 41° latitude, the three northernmost stations, all in Shasta County, being: Igo (Belding, Land Bds. Pac. Dist., 1890, p. 56), Fort Reading (Newberry, Pac. R. R. Rep., vi, 1857, p. 91), and Copper City, ten miles up Pitt River (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 204). While fairly common, at least formerly, in the San Francisco Bay region, the species does not invade along the coast much farther north; the northernmost recorded occurrences in the humid coast belt are: vicinity of San Geronimo, Marin County (J. Mailliard, Condor, ii, 1900, p. 63), and Sebastopol, Sonoma County (Belding, Land Bds. Pac. Dist., 1890, p. 56). Although the roadrunner has been recorded from Santa Catalina Island (Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77), there has never been any corroborative evidence to this effect; nor is it known to occur on any other of the islands.

**227 (387a)                    *Coccyzus americanus occidentalis* Ridgway**

CALIFORNIA CUCKOO

Synonyms—*Coccyzus americanus*; *Coccyzus erythrophthalmus*; Yellow-billed Cuckoo.

Status—Fairly common summer visitant chiefly to Lower and Upper Sonoran zones west of the Sierran divide. The metropolis of the species is in the willow association of the river valleys. Recorded north in the coast belt to Sebastopol, Sonoma County (Shelton, Condor, xiii, 1911, p. 19), and through the Sacramento Valley to Fort Reading, Shasta County (Newberry, Pac. R. R. Rep., vi, 1857, p. 92), and Shasta River (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 114). Recorded east of the Sierras from Death Valley and Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 45), Needles, on the Colorado River (F. Stephens, Condor, v, 1903, p. 101), and Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 36). Breeds south at least to Wilmington, Los Angeles County (Jay, Condor, xiii, 1911, p. 69), and Anaheim, Orange County (J. J. Schneider, Condor, ii, 1900, p. 34); records of occurrence of individuals at various points in San Diego County are as likely to have been of transients as breeding birds.

228 (390a)

**Ceryle alcyon caurina** Grinnell

WESTERN BELTED KINGFISHER

Synonyms—*Alcedo alcyon*; *Ceryle alcyon*; *Streptoceryle alcyon caurina*; Belted Kingfisher.

Status—Common migrant, appearing in suitable places throughout the state. Remains through the summer and breeds along both the seacoast and interior streams of the northern half of the state; recorded as breeding south along the coast to near Santa Paula, Ventura County (Willett, Pac. Coast Avif. no. 7, 1912, p. 54), on streams along the Sierras south at least to Yosemite Valley (Emerson, Zoe, iv, 1893, p. 179), and east of the Sierras to Alvord, Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 46). Winters commonly along the seacoast of the San Diegan district; in less numbers north along the coast of central California (J. Mailliard, Condor, vi, 1904, p. 16) at least to Tomales Bay (J. and J. W. Mailliard, MS).

229 (393c)

**Dryobates villosus harrisi** (Audubon)

HARRIS WOODPECKER

Status—Common resident of the narrow northwest humid coast belt south to Humboldt County; occurs in winter east through the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 7; Jenkins, Auk, xxiii, 1906, p. 161), and south along the coast to Monterey (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 37). Breeding birds from the coast region from Mendocino to Monterey counties are variously intermediate towards *hyloscopus*.

230 (393d, part) **Dryobates villosus hyloscopus** Cabanis and Heine

CABANIS WOODPECKER

Synonyms—*Picus villosus*; *Picus harrisi*, part; *Picus villosus harrisi*; *Dryobates villosus harrisi*, part; *Dendrocopus harrisi*; Harris Woodpecker, part.

Status—Common resident in the Canadian, Transition and high Upper Sonoran zones practically wherever these zones occur, except in the northwest humid coast belt (where replaced by *harrisi*) and the Modoc region of northeastern California (where replaced by *orius*). More widespread in winter through the interior valleys west of the Sierras. The breeding range is altitudinally very wide; for instance in Los Angeles County, from the lowland willows near Compton up to the highest pines of the San Gabriel Mountains (8500 feet); this means zonally a habitat, in this case within a relatively short distance, from low Upper Sonoran to high Transition.

This race of the hairy woodpecker, according to the latest reviser of the group (Oberholser, Proc. U. S. Nat. Mus., vol. 40, 1911, p. 611), extends northwardly to Cahto (Mendocino County), Snow Mountain (Colusa County), and, eastwardly, to the White Mountains, Mono County. The transition between *hyloscopus* and *orius* evidently takes place through the central Sierra Nevada.

**231 (393d, part) Dryobates villosus orius** Oberholser

## MODOC WOODPECKER

Synonyms—*Picus harrisi*, part; *Dryobates villosus hyloscopus*, part; Sierra Woodpecker.

Status—Common resident of suitable localities in the Modoc region of north-eastern California. Recorded west to Mount Shasta, and even to Canyon Creek, Trinity County, and south along the Sierra Nevada as far as Placerville (Oberholser, Proc. U. S. Nat. Mus., vol. 40, 1911, p. 610).

**232 (394a) Dryobates pubescens gairdneri** (Audubon)

## GAIRDNER WOODPECKER

Status—Fairly common resident in the extreme northern end of the humid coast belt. Recorded east to Hornbrook, Siskiyou County (W. K. Fisher, Condor, iv, 1902, p. 69), and Tower House, Shasta County (L. Kellogg, Condor, xiii, 1911, p. 119); south through Del Norte and Humboldt counties to Sherwood, Mendocino County (Mus. Vert. Zool.). The latter locality furnishes specimens intermediate towards *turati*. Occurs occasionally in winter south as far as Marin County (Ridgway, Bds. N. and Mid. Amer., vi, 1914, p. 241).

**233 (394e) Dryobates pubescens turati** (Malherbe)

## WILLOW WOODPECKER

Synonyms—*Dryobates pubescens gairdneri*, part; *Picus pubescens*; *Picus meridionalis*; *Picus turati*; *Dendrocopus pubescens*; *Picus pubescens gairdneri*; *Picus gairdneri*; *Dryobates pubescens*; Gairdner Woodpecker, part; Downy Woodpecker.

Status—Common resident locally, chiefly in the Upper Sonoran zone west of the Sierran divide, except in the extreme northwest humid coast belt. Most characteristically associated in the breeding season with the willow growths of the valleys. Recorded from the vicinity of Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 205) south to Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 87). The birds from the humid coast belt immediately north of San Francisco Bay, Marin to Mendocino counties, and from the mountains around the head of the Sacramento Valley, are variously intermediate towards *gairdneri* (W. K. Fisher, Condor, iv, 1902, p. 70). In winter, more widely distributed locally, even a little ways onto the desert slope of southern California: Palm Springs, Riverside County (J. Grinnell, Condor, vii, 1905, p. 13); etc. Certain aberrant examples of this form so nearly resemble the Downy Woodpecker of the Atlantic states, that they have been recorded as such.

**234 (394b) Dryobates pubescens homorus** Cabanis and Heine

## BATCHELDER WOODPECKER

Synonyms—*Dryobates pubescens orcoecus*; *Dryobates pubescens gairdneri*, part; *Dryobates pubescens leucurus*.

Status—Occurs in summer in the Transition zone on the Warner Mountains.

Modoc County (Mus. Vert. Zool.), and in the pinyon belt on the Panamint and Grapevine mountains, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 47). Of casual occurrence in winter elsewhere in the eastern portion of the state: Quincy, Kernville and Fort Tejon (W. K. Fisher, Condor, iv, 1902, p. 69); the specimens in question are said to be not typical.

**235 (396) *Dryobates scalaris cactophilus* Oberholser**

CACTUS WOODPECKER

Synonyms—*Picus scalaris*, part; *Dendrocopus scalaris*; *Dryobates scalaris*; *Dryobates lucasanus*; *Dryobates scalaris lucasanus*; *Dryobates scalaris bairdi*; Texas Woodpecker; Baird Woodpecker; San Lucas Woodpecker; Arizona Woodpecker.

Status—Common resident locally on the Lower Sonoran deserts of southeastern California, from the valley of the Colorado (north to Needles) west to the Santa Rosa Mountains (Mus. Vert. Zool.), Whitewater, San Geronio Pass (G. S. Miller, Auk, xi, 1894, p. 178), Hesperia, Mohave desert (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 47), and Onyx, Weldon and Kelso Valley, Kern County (Mus. Vert. Zool.). Recorded casually to San Jacinto Valley (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 242) and Riverside (Heller, Condor, iii, 1901, p. 100). The records of "*lucasanus*" for California appear to have been based on individual extremes of the prevalent *cactophilus* (see Oberholser, Proc. U. S. Nat. Mus., vol. 41, 1911, p. 154).

**236 (397) *Dryobates nuttalli* (Gambel)**

NUTTALL WOODPECKER

Synonyms—*Picus scalaris*, part; *Picus nuttalli*; *Dendrocopus nuttalli*; *Picus scalaris* var. *nuttalli*.

Status—Common resident locally of the Upper Sonoran zone west of the Sierran divide, from Yreka, Siskiyou County (Baird, Pac. R. R. Rep., ix, 1858, p. 93), Red Bluff, Tehama County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 205), and San Geronimo, Marin County (J. Mailliard, Auk, xv, 1898, p. 196), south to San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 62). Not recorded from the northwest humid coast belt north of Marin County, nor from east of the Sierras, save for a winter occurrence on the Mohave desert at Victorville (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 75). The easternmost breeding station in central California is Walker Pass, Kern County (Mus. Vert. Zool.); in the San Diegan district, the Cuyamaca Mountains (Mus. Vert. Zool.).

**237 (399, part) *Xenopicus albolarvatus albolarvatus* (Cassin)**

NORTHERN WHITE-HEADED WOODPECKER

Synonyms—*Picus albolarvatus*, part; *Melanerpes albolarvatus*; *Leuconerpes albolarvatus*.

Status—Common resident in the Transition zone along the Sierra Nevada, both slopes, from Mount Shasta and Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 114) south to Mount Pinos and head of Piru Creek, Ven-



tura County (Grinnell and Swarth colls.), and in the inner northern Coast Ranges, from Horse Creek, Siskiyou Mountains, south to Snow Mountain, Colusa County (J. Grinnell, Condor, iv, 1902, p. 90). Also on the Warner Mountains, Modoc County (Mus. Vert. Zool.).

**238** (399, part) **Xenopicus albolarvatus gravirostris** Grinnell

SAN BERNARDINO WHITE-HEADED WOODPECKER

Synonyms—*Picus albolarvatus*, part; *Xenopicus albolarvatus*, part; Southern White-headed Woodpecker; Grinnell Woodpecker.

Status—Common resident of the Transition zone on the San Gabriel, San Bernardino, San Jacinto, and Santa Rosa mountains (many records and specimens from each), to Volcan Mountain (Mus. Vert. Zool.) and the Cuyamaca Mountains (Bendire, Life Hist., II, 1895, p. 70), in south-central San Diego County.

**239** (400) **Picoides arcticus** (Swainson)

ARCTIC THREE-TOED WOODPECKER

Synonyms—*Picoides arcticus tenuirostris*; *Picoides tenuirostris*; Sierra Three-toed Woodpecker.

Status—Fairly common resident locally in the Boreal zone of the northern Sierra Nevada: Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 15); east of Mount Lassen (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 205); Eagle Lake (Sheldon, Condor, ix, 1907, p. 188); Soda Springs and Summit, Placer County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 429); Pyramid Peak, etc., vicinity of Lake Tahoe (many records); Big Trees, Calaveras County (Belding, Land Bds. Pac. Dist., 1890, p. 64). The latter is our southernmost record station. Also, in extreme northeastern California, on the Warner Mountains (Mus. Vert. Zool.).

**240** (403a) **Sphyrapicus varius ruber** (Gmelin)

NORTHERN RED-BREASTED SAPSUCKER

Synonyms—*Picus ruber*, part; *Sphyrapicus ruber*, part; *Melanerpes ruber*, part; *Sphyrapicus ruber notkensis*.

Status—Common winter visitant to the northern humid coast belt, east through the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 8), and south through the San Francisco Bay region and Santa Cruz district at least to Monterey (Grinnell coll.). Many specimens from this area are not typical of *ruber*, but variously intermediate towards *daggetti*.

**241** (403) **Sphyrapicus varius daggetti** Grinnell

SIERRA RED-BREASTED SAPSUCKER

Synonyms—*Picus ruber*, part; *Sphyrapicus varius ruber*, part; *Sphyrapicus ruber daggetti*; *Melanerpes ruber*, part; *Sphyrapicus ruber*, part; Red-breasted Woodpecker.

Status—Common in summer in the Transition zone, from the Trinity Mountains (Mus. Vert. Zool.), Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 205), and in smaller numbers on the Warner Mountains, Modoc County (Mus. Vert. Zool.), south along both slopes of the Sierra Nevada to near Weldon, Kern County (Mus. Vert. Zool.); and in southern California on the San Bernardino and San Jacinto mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, pp. 244-245); also on the inner northern coast ranges: South Yolla Bolly and Mt. Sanhedrin (Mus. Vert. Zool.). In winter this sapsucker is common at lower levels throughout the San Diegan district, and occurs sparingly north through the valley and foothill regions west of the Sierras, reaching the coast at least in the San Francisco Bay region. (For the nomenclatural status of this form, see Swarth, Univ. Calif. Publ. Zool., x, 1912, p. 35.)

**242 (402a)                    *Sphyrapicus varius nuchalis* Baird**

RED-NAPED SAPSUCKER

Synonyms—*Picus varius*; *Sphyrapicus nuchalis*; Red-naped Woodpecker; Red-necked Woodpecker.

Status—Common in summer in the Transition and Canadian zones of the Warner Mountains, Modoc County (Mus. Vert. Zool.; Henshaw, Rep. Wheeler Surv., 1879, p. 312). Common in winter in the valley of the lower Colorado River from Needles to Yuma (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 132; Heermann, Pac. R. R. Rep., x, 1859, p. 58); also occurs at that season rather sparingly in the San Diegan district (several records), even to San Clemente Island (Linton, Condor, x, 1908, p. 84). Recorded casually in winter from Palo Alto (Van Denburgh, Proc. Amer. Philos. Soc., xxxviii, 1899, p. 162), San Geronimo, Marin County (J. Mailliard, Condor, ii, 1900, p. 64), and Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 205).

**243 (404)                    *Sphyrapicus thyroideus* (Cassin)**

WILLIAMSON SAPSUCKER

Synonyms—*Picus thyroideus*; *Sphyrapicus williamsoni*; *Melanerpes rubrigularis*; Brown-headed Woodpecker; Round-headed Woodpecker; Williamson Woodpecker.

Status—Common in summer in high Transition and Canadian zones in the Warner Mountains, Modoc County (Mus. Vert. Zool.), in the Sierra Nevada from Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 206) to Taylor Meadow, Tulare County (Mus. Vert. Zool.), and in southern California in the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 64) and San Jacinto Mountains (Bendire, Life Hist., ii, 1895, p. 97; Mus. Vert. Zool.). Occurs in winter down into the adjacent Transition, and sparingly even to Upper Sonoran. Recorded west to Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 8) and Trinity Valley (Sclater, Proc. Zool. Soc., 1858, p. 2), in northern California; and in the San Diegan district to Mt. Pinos (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 49), and Los Angeles (Swarth, Condor, iii, 1901, p. 67). There is but one record for west-

central California: Santa Cruz (McGregor, Pac. Coast Avif. no. 2, 1901, p. 8); and none for the great interior valleys, or the region south and east of the Sierran divide.

**244 (405a) *Phloeotomus pileatus abieticola* (Bangs)**

NORTHERN PILEATED WOODPECKER

Synonyms—*Ceophloeus pileatus*; *Ceophloeus pileatus abieticola*; *Phloeotomus pileatus picinus*; *Hylotomus pileatus*; *Dryotomus pileatus*; *Dryocopus pileatus*; Black Woodcock; Log-cock; Western Pileated Woodpecker.

Status—Fairly common resident locally in timbered Transition of the inner coast ranges of northwestern California: Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 8) south to Mount Sanhedrin, Mendocino County (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 581; Mus. Vert. Zool.) and Seaview and Cazadero, Sonoma County (J. and J. W. Mailliard, MS); and in the Sierra Nevada from Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 206) south to Kings River Canyon, Fresno County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 49). The records for Mount Diablo (J. G. Cooper, Orn. Calif., 1, 1870, p. 396) and Hollister, San Benito County (Haggitt, Cat. Bds. British Mus., xviii, 1890, p. 515), if not faulty, would indicate former occurrence in west-central California.

**245 (407a) *Melanerpes formicivorus bairdi* Ridgway**

CALIFORNIA WOODPECKER

Synonyms—*Picus formicivorus*; *Melanerpes formicivorus*; *Melanerpes melanopogon*; *Balanosphyra formicivora bairdi*.

Status—Common resident of timbered parts of the Upper Sonoran and lower Transition zones along the whole length of the state west of the Sierran divides. Extreme southeastern record: Campo, San Diego County (Belding, Land Bds. Pac. Dist., 1890, p. 69). Extreme eastern station in central California: Carroll Creek, east slope of Sierras, Inyo County (Mus. Vert. Zool.). Extreme northeastern record: Sisson, Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 116). Abundant in those regions where oak trees are plentiful.

**246 (408) *Asyndesmus lewisi* Riley**

LEWIS WOODPECKER

Synonyms—*Melanerpes torquatus*; *Melanerpes lewisi*; *Asyndesmus torquatus*; *Picus torquatus*.

Status—Common resident locally in the extreme northern tier of counties, from the Warner Mountains (Mus. Vert. Zool.) west to the Siskiyou (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 9) and Trinity (Mus. Vert. Zool.) mountains; south along both slopes of the Sierra Nevada to Walker Basin and Fort Tejon (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 50). Recorded as breeding also near Niles, in Alameda County (Bolander, Condor, xvi, 1914, p. 183), in San Benito Valley, San Benito County (J. Mailliard, Bull.

Cooper Orn. Club., 1, 1899, p. 53), and upper Salinas Valley, San Luis Obispo County (Thompson, Condor, 11, 1900, p. 54). Of wide, though sporadic occurrence in winter in timbered areas everywhere west of the Sierran divide, and south through the San Diegan district, at least to Witch Creek (Marsden, Condor, 19, 1907, p. 27). Recorded from but one locality anywhere southeast of the Sierras: Yermo, Mohave Desert, October (Lamb, Condor, 14, 1912, p. 36). The species is erratic in its distributional behavior both summer and winter, and is quite likely to put in an appearance anywhere irrespective of climatic conditions.

**247 (411) Centurus uropygialis uropygialis Baird**

GILA WOODPECKER

Synonym—*Melanerpes uropygialis*.

Status—Common resident along the valley of the Colorado River, from the Nevada line to the Mexican line (many records); closely adherent to the willow-cottonwood association of the river bottom, and to the giant cactus belt, of limited extent a few miles above Potholes.

**248 (412a, part) Colaptes auratus borealis Ridgway**

BOREAL FLICKER

Synonyms—*Colaptes auratus*, part; *Colaptes auratus luteus*; Yellow-shafted Flicker, part; Northern Flicker.

Status—Rare winter visitant. Although recorded from many widely scattered localities, the southernmost of which is Palm Springs, Riverside County (=“Warm Springs, San Diego County”: J. A. Allen, Bull. Amer. Mus. Nat. Hist., 4, 1892, p. 21), it is quite probable that many of these are really based upon aberrantly colored examples of *C. c. collaris*. The latter, like the California Linnnet, appears to be subject to recessive coloration, whereby in certain individuals reds are replaced by yellow. Conspicuously yellow-shafted flickers should not, therefore, because of this feature alone, be referred to *C. a. borealis*. I have personally examined the following apparently “pure-blood” specimens of *borealis*: ♂, no. 6056, December 18, 1893; ♀, no. 6057, January 14, 1895, both from San Geronimo, Marin County, and contained in the Mailliard collection; ♀, no. 1853, Swarth collection, Los Angeles, February 20, 1901.

**249 (413) Colaptes cafer collaris Vigors**

RED-SHAFTED FLICKER

Synonyms—*Colaptes collaris*; *Colaptes mexicanus*; *Colaptes mexicanoides*; *Colaptes ayresii*; *Colaptes cafer*; *Colaptes cafer mexicanus*; *Colaptes cafer hybridus*; *Colaptes auratus mexicanus*; *Colaptes auratus*, part; *Colaptes auratus* var. *hybridus*; Yellow-shafted Flicker, part; Hybrid Flicker.

Status—Common resident of Upper Sonoran and Transition zones almost throughout the state; breeds also locally in the Canadian zone; winters in suitable portions of the Lower Sonoran deserts as well as abundantly in Upper Sonoran and Transition. Flickers of the extreme northern humid coast belt are intermediate towards *saturator*, so far so as to be best referred to that form in cer-

tain cases. The frequently recurring cases of "hybridization", especially in winter birds, are doubtless some of them correctly diagnosed as showing near descent relationship with *auratus*; but I feel confident that many of the specimens showing yellow shafts in greater or less degree or proportion are in reality chromatic variants of *collaris*.

**250 (413a)                    *Colaptes cafer saturator* Ridgway**

NORTHWESTERN FLICKER

Status—Common resident of Transition and Boreal zones in extreme northern end of humid coast belt, from Humboldt Bay region northward. Specimens from this area are not typical of *saturator* but are nearest that form; birds from farther south in the same belt, especially in winter (and then south to the San Francisco Bay region), are also intermediate towards *collaris*, but nearest the latter. Flickers have been recorded under the name *saturator* from the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 9), and Red Bluff (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 206).

**251 (414b)                    *Colaptes chrysoides mearnsi* Ridgway**

MEARNS GILDED FLICKER

Synonyms—*Colaptes chrysoides*; Malherbe Flicker; Gilded Flicker.

Status—Fairly common resident locally on the California side of the lower Colorado River, three to five miles above the Laguna Dam (Brown, Condor, vi, 1904, p. 46; J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 135). The metropolis of the species is in the belt of giant cactus, a limited growth of which exists on the California side of the river at the above point.

**252 (418)                    *Phalaenoptilus nuttalli nuttalli* (Audubon)**

NUTTALL POOR-WILL

Synonym—*Antrostomus nuttalli*, part.

Status—Fairly common in summer in Transition and Upper Sonoran zones of northeastern California, chiefly east of the Sierran divide. Recorded from Warner Mountain region (Mus. Vert. Zool.) west to Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 116) and Yreka, Siskiyou County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 206), and south along the eastern border of the state to the desert ranges in the vicinity of Death Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 51). Occurs throughout the year in the latter region, and as a winter visitant to the deserts to the southward, as at Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 36) and along the valley of the lower Colorado River, at least to vicinity of the Laguna dam (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 139).

**253 (418a)                    *Phalaenoptilus nuttalli nitidus* Brewster**

FROSTED POOR-WILL

Synonym—*Phalaenoptilus nuttalli*, part.

Status—Resident on the Lower Sonoran deserts of southeastern California; common along the lower Colorado River (J. Grinnell, Univ. Calif. Publ. Zool.,

xii, 1914, p. 139). Recorded as far north as Death Valley, Inyo County (Bendire, Life Hist., II, 1895, p. 157), and west to Witch Creek, San Diego County (Bishop, Condor, VII, 1905, p. 142). The latter locality also furnishes specimens referable to *californicus*, and it is probable that the one recorded is at least not typical of *nitidus*. The latter form may, however, be confidently expected along the western edge of the Colorado Desert not far east of Witch Creek.

**254 (418b) Phalaenoptilus nuttalli californicus** Ridgway

DUSKY POOR-WILL

Synonyms—*Antrostomus nuttalli*, part; *Phalaenoptilus nuttalli*, part; *Phalaenoptilus nuttalli nitidus*, part; California Poor-will; Nuttall Whip-poor-will.

Status—Common in summer in the Upper Sonoran zone west of the Sierran divide, both in the western foothills of the Sierras and in the coast ranges, from Gridley, Butte County (Belding, Land Bds. Pac. Dist., 1890, p. 75) and vicinity of South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 41), south to the Mexican boundary, including the west slopes of the Sierra Nevada and the whole San Diegan district. Not recorded from the humid coast belt north of Sonoma County. Occurs locally up into the Transition zone, especially in late summer. Recorded from San Clemente and Santa Catalina islands. Migratory at high altitudes and northerly, but occurs throughout the winter in the foothill region of southern California; taken in January at Paicines, San Benito County (J. and J. W. Mailliard, MS).

**255 (420d) Chordeiles virginianus hesperis** Grinnell

PACIFIC NIGHTHAWK

Synonyms—*Chordeiles popetue*; *Chordeiles popetue* var. *henryi*; *Chordeiles virginianus*; *Chordeiles virginianus henryi*, part; Western Nighthawk, part; Bull-bat.

Status—Common summer visitant to high Transition and Boreal zones in extreme northern California, from the Warner Mountains, Modoc County (Oberholser, Bull. 86, U. S. Nat. Mus., 1914, p. 50), west to Humboldt Bay (W. K. Fisher, Condor, iv, 1902, p. 132); and along the Sierra Nevada from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 116) south to Trout Creek, Tulare County (Mus. Vert. Zool.); also, in southern California, on the San Bernardino Mountains (J. Grinnell, Condor, vii, 1905, p. 170); casual (?) at Furnace Creek, Death Valley, June 19, 1891 (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 53; see also Oberholser, *loc. cit.*). Noted rarely in migration elsewhere west of the Sierras: Ukiah, Mendocino County (McGregor, Nidologist, III, 1896, p. 129); Haywards (Emerson, Bull. Cooper Orn. Club, I, 1899, p. 28); Pasadena (J. Grinnell, Bds. Los Angeles Co., 1898, p. 26). Doubtless most of the valley records under one or other of the synonyms enumerated above really belong to the Texas nighthawk.

256 (421) **Chordeiles acutipennis texensis** Lawrence

## TEXAS NIGHTHAWK

Synonyms—*Chordeiles texensis*; *Chordeiles virginianus henryi*, part; Western Nighthawk, part.

Status—Common summer visitant to Lower Sonoran practically wherever this zone occurs; particularly numerous on the southeastern deserts and in the San Diegan district. Recorded east of the Sierras north to Bishop, in Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 53), and west of the Sierras north to Stanislaus County (Belding, Zool. II, 1891, p. 99), Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 123) and even to Ukiah, Mendocino County (Oberholser, Bull. 86, U. S. Nat. Mus., 1914, p. 104) and Winslow, Glenn County (W. P. Taylor, Condor, XIV, 1912, p. 222). Of casual occurrence on Santa Barbara Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 58).

There has been much confusion of this species with *Ch. v. hesperis*; for instance the record of *texensis* from Lake Tahoe (Ray, Osprey, V, 1901, p. 115) with very little doubt belongs to *hesperis*; and conversely many of the records of the "Western" Nighthawk quite surely belong to *texensis*.

257 (422) **Cypseloides niger borealis** (Kennerly)

## NORTHERN BLACK SWIFT

Synonyms—*Cypseloides niger*; *Cypseloides borealis*; *Nephoecetes niger*; Black Swift; Northern Swift.

Status—Fairly common summer visitant to a few widely separated localities in Upper Sonoran and Transition zones: Vicinity of Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 54); Kearsarge Pass, Inyo County (Mus. Vert. Zool.); Santa Cruz, where found nesting in the sea-cliffs (Vrooman, Auk, XVIII, 1901, p. 394; Vrooman, Condor, VII, 1905, p. 176; Dawson, Condor, XVII, 1915, pp. 8-12, figs. 5-8); Monterey County and San Bernardino Mountains (Bendire, Life Hist., II, 1895, p. 175). Recorded casually or in migration at various other points, localities representing extreme portions of the state being Pitt River (Hartert, Cat. Bds. British Mus., XVI, 1892, p. 495), and San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 79). In my own experience the black swift is a comparatively rare species in this state.

258 (424) **Chaetura vauxi** (Townsend)

## VAUX SWIFT

Synonyms—*Acanthylis pelasgia*; *Acanthylis vauxi*; Oregon Swift.

Status—Common summer visitant locally to the northwest humid coast Transition, from the Santa Cruz district northward. Recorded as breeding near Santa Cruz (Bendire, Life Hist., II, 1895, p. 183), in Marin County (J. Mailliard, Condor, II, 1900, p. 64), and in Humboldt County (H. R. Taylor, Condor, VII, 1905, p. 177). Occurs commonly in both migrations practically throughout the state.

259 (425)

**Aeronautes melanoleucus** (Baird)

WHITE-THROATED SWIFT

Synonyms—*Panyptila melanolcuca*; *Cypselus saratilis*; *Micropus melanoleucus*.

Status—Common summer visitant locally east and south of the northern humid coast belt, chiefly to mountainous portions of Upper and Lower Sonoran zones. Occurs on the Santa Barbara Islands and north along the coast to Santa Cruz County. Numerous interiorly throughout the San Diegan and desert regions; north less commonly along the Sierra Nevada as far as Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 117), and along the inner coast ranges to Mount Diablo, Contra Costa County (Cohen, Condor, v, 1903, p. 119). While nesting chiefly or altogether below Transition, the birds forage far and wide even over the highest peaks. Remains in varying numbers through the winter in the San Diegan district, where recorded at that season as far north as Ojai Valley, Ventura County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 55); also Paicines, San Benito County, in January (J. and J. W. Mailliard, MS) and in the vicinity of Salton Sea, January (Van Rossem, Condor, XIII, 1911, p. 132).

260 (429)

**Archilochus alexandri** (Bourcier and Mulsant)

BLACK-CHINNED HUMMINGBIRD

Synonym—*Trochilus alexandri*.

Status—Common summer visitant to Lower and Upper Sonoran zones both east and west of the Sierran divide. Recorded as breeding west of the Sierras as far north as lower McCloud River, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 207). Apparently most abundant in the San Diegan district. East of the Sierran divide, breeds along the Mohave River (Coues, Proc. Acad. Nat. Sci. Phila., 1866, p. 56), along the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 143), and in Owens Valley (Bendire, Life Hist., II, 1895, p. 198), and recorded, perhaps casually, north to Honey Lake and Camp Bidwell, in the extreme northeastern corner of the state (Henshaw, Rep. Wheeler Surv., 1879, p. 312). Noted in the coast region of west-central California casually north to the San Francisco Bay region: Haywards, Alameda County (J. G. Cooper, Amer. Nat., x, 1876, p. 90); San Geronimo, Marin County (J. Mailliard, Condor, xv, 1913, p. 43). Winters sparingly on the Colorado Desert: Palm Springs, December (J. Grinnell, Condor, VI, 1904, p. 42).

261 (430)

**Calypte costae** (Bourcier)

COSTA HUMMINGBIRD

Synonyms—*Atthis costae*; *Trochilus costae*; *Selasphorus costae*.

Status—Common summer visitant to the Lower Sonoran zone, in the San Diegan district northwest to Santa Barbara (J. Mailliard, MS), on the Colorado and Mohave deserts, and, northeast of the Sierras, through the Panamint Mountains and Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 56). Rare north of the 35th parallel west of the Sierras: recorded casually from



Haywards (J. G. Cooper, Amer. Nat., x, 1876, p. 90), and Oakland (McGregor, Auk, xiv, 1897, p. 91). Noted in migration on San Clemente Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 15), and, perhaps breeding, on Santa Barbara Island (Willett, Pac. Coast Avif. no. 7, 1912, p. 60). Has been found in winter on the Colorado Desert: Palm Springs (J. Grinnell, Condor, vi, 1904, p. 42; *ibid.*, xiv, 1912, p. 154).

262 (431)

**Calypte anna** (Lesson)

ANNA HUMMINGBIRD

Synonyms—*Trochilus anna*; *Atthis anna*; *Selasphorus anna*; *Calliphlox anna*; *Ornismya anna*; *Mellisuga anna*; *Trochilus icterocephalus*.

Status—Common resident of the Upper Sonoran zone west of the Sierran Divide: San Diegan district and central coast district north to include the San Francisco Bay region; western foothills of Sierras and innermost northern coast ranges to head of Sacramento Valley. Northernmost records: Ferndale and Eureka, Humboldt County, in winter (C. M. Wilder, Condor, xv, 1913, p. 129; Clay, Condor, xv, 1913, p. 184), Cahto, Mendocino County (McGregor, Nidologist, iii, 1896, p. 130), Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 582), Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 117), and Yreka (Feilner, Ann. Rep. Smiths. Inst., 1865, p. 429). All these stations are doubtless beyond the regular breeding area of this species. As with all our hummingbirds there is a post-breeding upward invasion, so that mid-summer finds many individuals temporarily in Transition and even Boreal of nearby mountain ranges. The species has also been recorded from Santa Catalina, Santa Cruz and the Farallon islands; casually in winter from the Colorado Desert: Palm Springs (J. Grinnell, Condor, vi, 1904, p. 42), Mecca and Brawley (Van Rossem, Condor, xiii, 1911, p. 132). In its breeding range and throughout the year as well, save for the temporary partial exodus noted above, the Anna Hummingbird adheres with remarkable closeness to the Upper Sonoran life zone.

263 (433)

**Selasphorus rufus** (Gmelin)

RUFOUS HUMMINGBIRD

Synonyms—*Trochilus rufus*, part; *Selasphorus ruber*, part; *Selasphorus henshawi*; *Calliphlox rufa*; Red-backed Hummingbird.

Status—Common migrant the whole length of the state west of the deserts; in spring through the valley and foothill regions of the Pacific slope, in summer and fall chiefly along the mountain ranges. In spring, the species arrives early (March and even February), and some individuals are still about till early May. The return migration begins the last week of June (old males, followed in two or three weeks by females and young-of-the-year). The result of this state of affairs is that many unqualified records of breeding encumber even our most authoritative literature, which records were in all probability based either on the occurrence of *rufus* in a locality during its supposed breeding season, or upon misidentification of the eggs and nests of other species of hummingbirds. It is quite possible that *rufus* breeds in the Boreal zone along the central Sierra Nevada (though I have failed to establish even one undoubted instance of the



266 (444)

**Tyrannus tyrannus** (Linnaeus)

EASTERN KINGBIRD

Status—Rare transient visitant; two records: one individual seen by A. K. Fisher at Olancha, near southern end of Owens Lake, June 29, 1891 (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 59); immature male secured by W. B. Judson at Santa Monica, August 31, 1895 (J. Grinnell, Bds. Los Angeles Co., 1898, p. 29); the latter specimen is now no. 10253, Mus. Vert. Zool. The species probably occurs not infrequently as a summer visitant along the extreme north-eastern borders of the state.

267 (447)

**Tyrannus verticalis** Say

WESTERN KINGBIRD

Synonyms—*Muscicapa verticalis*; Arkansas Kingbird; Arkansas Flycatcher.

Status—Common summer visitant to Upper and Lower Sonoran zones both east and west of the Sierras and almost everywhere these zones occur; breeds also locally in Transition. Of wider distribution during migration. Most abundant in the interior semi-arid valleys. Rare or absent on the deserts, save in migration, and in the humid coast belt north of Sonoma County and west of Shasta Valley, Siskiyou County.

268 (448)

**Tyrannus vociferans** Swainson

CASSIN KINGBIRD

Synonym—Cassin Flycatcher.

Status—Fairly common resident locally in the Lower Sonoran zone in the San Diegan district northwest to Santa Barbara. More in evidence in winter, when *T. verticalis* is absent, for in summer *T. vociferans* is far outnumbered by *verticalis*. Winters also irregularly north to Santa Cruz (J. G. Cooper, Orn. Calif., I, 1870, p. 314). Occurs commonly as a summer visitant, and breeding, at Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 123; also eggs in Mailliard coll.). Recorded, further, from Santa Cruz Island, November (Linton, Condor, x, 1908, p. 127), the Providence Mountains, eastern San Bernardino County (F. Stephens, Condor, v, 1903, p. 102), and, in winter, Imperial Valley (Van Rossem, Condor, XIII, 1911, p. 132).

269 (454)

**Myiarchus cinerascens cinerascens** (Lawrence)

ASH-THROATED FLYCATCHER

Synonyms—*Myiobius crinitus*; *Tyrannus crinitus*; *Myiarchus mexicanus*; *Myiarchus crinitus cinerascens*; *Tyrannula cinerascens*.

Status—Common summer visitant to Lower and Upper Sonoran zones both on the desert and the Pacific drainage. Northernmost record east of the Sierra Nevada: Honey Lake, Lassen County (Henshaw, Rep. Wheeler Surv., 1879, p. 309); northernmost west of the Sierras: Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 209). Most northwestern records: Ukiah, Mendocino County (McGregor, Nidologist, III, 1896, p. 129), and Covelo, Mendocino County (Mus. Vert. Zool.). Casual visitant to the Farallon Islands (Dawson, Condor,

xiii, 1911, p. 180). More widespread at low levels in spring; in late summer visits higher altitudes, even well through Transition, at least in southern California. Winters casually in Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 132).

**270 (456) Sayornis phoebe (Latham)**

EASTERN PHOEBE

Status—Casual visitant; but two records: male specimen, now no. 1849 in the Swarth collection, on deposit in Mus. Vert. Zool., obtained at San Fernando, Los Angeles County, February 14, 1901 (see Swarth, Condor, iii, 1901, p. 66); specimen, now no. 23461 Mus. Vert. Zool., taken at Moss Beach, near Pacific Grove, Monterey County, March 7, 1913 (Brooks, Condor, xv, 1913, p. 182).

**271 (457) Sayornis sayus (Bonaparte)**

SAY PHOEBE

Synonyms—*Myiobius saya*; *Tyrannula saya*; *Sayornis pallida*; Say Flycatcher.

Status—Breeds commonly in arid Upper and Lower Sonoran zones widely east of the Sierran divide, but only locally on the Pacific slope. Resident on the southeastern deserts north through the Inyo region to Mono Lake (W. K. Fisher, Condor, iv, 1902, p. 11). Breeds in portions of the San Diegan district (Escandido, Elsinore, Whittier, San Bernardino, Sespe, etc.), in the southern part of the San Joaquin basin, and northwest as far as Paicines, San Benito County (J. and J. W. Mailliard, Condor, iii, 1901, p. 123); also in the upper Sacramento Valley (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 209). Common winter visitant widely to the San Diegan district, even on the Santa Barbara Islands, and north, west of the Sierran divide and chiefly east of the humid coast belt, to the head of the Sacramento Valley. Recorded also, as a transient, from Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 117), Sisson (H. C. Bryant, Condor, xiii, 1911, p. 205), and Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 9). Not reported at any season from the humid coast belt north of Sebastopol, Sonoma County.

**272 (458) Sayornis nigricans (Swainson)**

BLACK PHOEBE

Synonyms—*Muscicapa semiatra*; *Myiobius nigricans*; *Tyrannula nigricans*; *Tyrannus nigricans*; *Muscicapa nigricans*; *Sayornis nigricans semiatra*; Black Flycatcher.

Status—Common resident of Upper and Lower Sonoran zones west of the Sierran divide, south through the San Diegan district, and north through the San Francisco Bay region and Sacramento Valley; less common farther north through the humid coast belt, even to Crescent City (Ferry, Condor, x, 1908, p. 41). Northernmost recorded breeding station: Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 209). Occurs in winter on portions of the southeastern deserts, as along the Colorado River; also on the Santa Bar-

bara Islands. Occurs sparingly east of the Sierra Nevada in the Death Valley region and north through Owens Valley to Bishop Creek, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 63).

**273 (459) Nuttallornis borealis (Swainson)**

OLIVE-SIDED FLYCATCHER

Synonyms—*Contopus borealis*; *Tyrannus borealis*; *Tyrannus cooperi*.

Status—Common summer visitant to the Transition and Canadian zones in the Sierras and Coast Ranges, the whole length of the state. Southeasternmost breeding record, Cuyamaca Mountains, San Diego County (Bendire, Life Hist., II, 1895, p. 282); northeasternmost, Warner Mountains, Modoc County (Mus. Vert. Zool.), though otherwise not recorded east of the Sierras except as a migrant. Breeds west to the coast from Monterey County northward. Ordinarily confined in summer to areas well above the lower edge of Transition; but noted locally during that season in country that is dominantly high Upper Sonoran, at Stanford University (W. K. Fisher, Condor, VI, 1904, p. 108), and at Berkeley (J. Grinnell, Condor, XVI, 1914, p. 32), where planted coniferous trees form extensive groves, thus introducing Transition zone conditions. The species occurs rather widely in migration, through the valleys both east and west of the Sierran divide, casually to the Farallon Islands (Dawson, Condor, XIII, 1911, p. 180).

**274 (462) Myiochanes richardsoni richardsoni (Swainson)**

WESTERN WOOD PEWEE

Synonyms—*Contopus richardsoni*; *Horizopus richardsoni*; *Tyrannula virens*; *Contopus virens* var. *richardsoni*; *Contopus richardsoni saturatus*; Short-legged Pewee.

Status—Common summer visitant to Upper Sonoran, Transition and Canadian almost wherever these zones occur. Most abundant in Transition along the main mountain ranges; fewer in the more arid regions east of the Sierras, and in the northern humid coast belt. Widely distributed during migration over the low country both east and west of the Sierras, even to the Santa Barbara and Farallon islands.

**275 (464) Empidonax difficilis difficilis Baird**

WESTERN FLYCATCHER

Synonyms—*Empidonax flaviventris*; *Empidonax flaviventris difficilis*; *Empidonax cineritius*; *Empidonax difficilis cineritius*; *Empidonax insulicola*; Island Flycatcher; San Lucas Flycatcher; Western Yellow-bellied Flycatcher.

Status—Common summer visitant to portions of the Upper Sonoran and Transition zones the whole length of the state west of the Sierran divide; also in the Warner Mountains, Modoc County (Mus. Vert. Zool.). Occurs almost universally throughout the state during migration. Breeds most abundantly in certain foothill localities in the San Diegan district and in the southern humid coast belt including the San Francisco Bay region, but more sparingly along

the Sierra Nevada. Breeding birds from Santa Rosa, Santa Cruz, San Clemente and Santa Catalina islands have been referred to a separate species, *insulicola* (Oberholser, Auk, xiv, 1897, p. 300), but apparently without adequate reason (see J. Grinnell, Condor, viii, 1906, p. 74). Summer birds from the Cuyamaca Mountains, San Diego County have been called by the same name, *cineritius*, as the form from southern Lower California. This does not seem to express the facts, for several breeding birds at hand from the Cuyamaca region show no characters outside the range of variation among more northern examples of *difficilis*.

**276 (466)**      ***Empidonax trailli trailli*** (Audubon)

TRAILL FLYCATCHER

Synonyms—*Tyrannula trailli*; *Myiobius pusilla*; *Empidonax pusillus*; *Empidonax trailli* var. *pusillus*; Little Flycatcher.

Status—Summer visitant to suitable portions of Lower and Upper Sonoran zones and rarely low Transition, both east and west of the Sierran divide. Most numerous in the willow tracts in the beds of large valleys. Breeds along streams well into the foot-hill regions, but apparently seldom above the limits of Upper Sonoran. Northernmost summer record east of the Sierras: Goose Lake, Modoc County (Mus. Vert. Zool.); breeds sparingly in the Inyo region (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 65). Northernmost record west of the Sierra Nevada: Scott River, Siskiyou County (Mus. Vert. Zool.). Breeds south to base of Cuyamaca Mountains, San Diego County (Anthony, Auk, xii, 1895, p. 390). Widely spread over the lowlands of the state generally, during spring migration; in the return migration which begins in midsummer this flycatcher like many other insectivorous birds invades the higher mountains, even to the Canadian zone, which fact has probably led to the erroneous recording of the species as a breeding bird above its real breeding range.

**277 (468)**      ***Empidonax hammondi*** (Xantus)

HAMMOND FLYCATCHER

Synonym—*Tyrannula hammondi*.

Status—Common spring transient through the valleys of southern and central California; less common in the fall, occurring in the mountains as well as the lowlands. Passes in migration both east and west of the Sierras, but not through the coast belt north of Monterey County; in fact the only unquestioned record for the northwestern section of the state, north of Monterey and west of Mount Shasta, is Cotati, Sonoma County, April 21 (Mailliard coll.). Of the many records of the breeding of this species along the Sierras, not one has been authenticated, though a few remain untested. At any rate, I am confident that all breeding records from southern California, and central California west of the Sierras, are erroneous—most emphatically those from the San Jacinto and San Bernardino mountains. In these and doubtless most other cases *E. griseus* or *E. wrighti* was mistaken for it. Breeding of *hammondi* in the high central and northern Sierras is not improbable, but the records to this effect need verification.

278 (469)

**Empidonax wrighti** Baird

WRIGHT FLYCATCHER

Synonyms—*Empidonax obscurus*, part; *Empidonax griseus*, part; *Empidonax canescens*, part; Gray Flycatcher, part.

Status—Common summer visitant to high Transition and Canadian zones along both slopes of the Sierras, from Mount Shasta south to the Mount Whitney region; also to the innermost northern coast ranges: South Yolla Bolly and Mt. Sanhedrin (Mus. Vert. Zool.), to the Warner Mountains, Modoc County (Mus. Vert. Zool.), and to the San Gabriel, San Bernardino, San Jacinto and Santa Rosa mountains of southern California (Mus. Vert. Zool.). There are authentic breeding records from all the above indicated areas. Occurs sparingly in migration through the valleys both east and west of the Sierras, but not at all in the coast region of central and northern California.

279 (469.1)

**Empidonax griseus** Brewster

GRAY FLYCATCHER

Synonyms—*Empidonax obscurus*, part; *Empidonax wrighti*, part; *Empidonax canescens*, part; Wright Flycatcher, part.

Status—Fairly common transient and winter visitant in the valleys of the San Diegan district, where recorded from a number of localities northwest to Saticoy (J. G. Cooper, Auk, iv, 1887, pp. 85, 92), and Ventura (Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., iii, 1874, p. 520); also on the southeastern deserts, as along the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 153), north to Goffs, eastern San Bernardino County (Hollister, Auk, xxv, 1908, p. 459). I am much puzzled by the occurrence of this species in so consistently typical form in migration, and then apparently disappearing. For I now doubt that the breeding flycatchers from the high San Gabriel, San Bernardino and San Jacinto mountains can be properly referred to *griseus*, but believe they are *wrighti* (see Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, pp. 257-259). Typical *griseus* does not seem to have been authentically reported in summer north of the Mexican boundary, and the possibility presents itself that the species is like *Pyrocephalus* and *Passerculus rostratus* which breed south and come north for the winter!

280 (471)

**Pyrocephalus rubinus mexicanus** Selater

VERMILION FLYCATCHER

Synonyms—*Pyrocephalus rubineus*; *Pyrocephalus mexicanus*; Red Flycatcher.

Status—Common resident in the mesquite belt of the Colorado desert; northwest through the Imperial valley at least to Torres, Riverside County (Mus. Vert. Zool.), and north along the Colorado River to Needles (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 153). Winters regularly but in small numbers, to the westward in the lowlands of the San Diegan district, from which there are many records, from San Diego (J. G. Cooper, Auk, iv, 1887, p. 92) northwest

to Santa Barbara (Torrey, Condor, ix, 1907, p. 109). This species is thus notable for its partial shifting during the winter season west and north from its breeding area, though it is so far impossible to designate the exact geographic source of the individuals participating in this movement.

**281 (474e)                    *Otocoris alpestris actia* Oberholser**

CALIFORNIA HORNED LARK

Synonyms—*Otocoris alpestris*, part; *Eremophila cornuta*; *Eremophila alpestris chrysolaeama*, part; *Otocorys chrysolaeama*; *Otocoris rufa*; *Otocoris alpestris chrysolaeama*; *Otocoris alpestris rubea*, part; *Phileremos cornutus*, part; *Alauda alpestris*; *Otocoris alpestris arenicola*, part; *Otocorys strigata*, part; Mexican Horned Lark; Sky Lark.

Status—Common resident of the valleys and plains west of the Sierran divide from the vicinity of Stockton and San Francisco Bay in central California, south throughout the San Joaquin Valley and coastal area, and all through the San Diegan district to the Mexican line. This form also occurs limitedly on the desert drainage in Tehachapi Pass, in extreme northwestern Los Angeles County (Antelope Valley), and in San Geronio Pass. These birds exhibit intermediateness towards *O. a. ammophila*. The northernmost breeding record is Cotati, Sonoma County (Mailliard coll.). Oberholser (Proc. U. S. Nat. Mus., xxiv, 1902, p. 849) found that the birds from Milton, etc., San Joaquin County, are intermediate towards *O. a. rubea*.

**282 (474f)                    *Otocoris alpestris rubea* Henshaw**

RUDDY HORNED LARK

Synonyms—*Otocoris alpestris*, part; *Eremophila alpestris chrysolaeama*, part; *Alauda rufa*; *Otocoris rubea*.

Status—Common resident in the northern Sacramento Valley. Recorded as breeding from Red Bluff, Tehama County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 210) south to Lincoln, Placer County (Adams, Placer Co. Inst. Res., 1909, p. 35) and Drytown, Amador County, not typical (Mailliard coll.). Recorded in winter north to Battle Creek, Shasta County (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, p. 853), southwestward casually to Santa Cruz (Oberholser, *loc. cit.*).

**283 (474g)                    *Otocoris alpestris strigata* Henshaw**

STREAKED HORNED LARK

Synonym—*Otocorys strigata*, part.

Status—Irrregular winter visitant to the northern part of the state, chiefly through the Sacramento Valley. Recorded south to Stockton (Belding, Land Bds. Pac. Dist., 1890, p. 106), and San Francisco (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, p. 838). According to the latter authority breeding horned larks from the vicinity of Lake Tahoe are referable to this form, though probably as a result of intergradation between *O. a. merrilli* and *O. a. rubea*.



**284 (474i) *Otocoris alpestris merrilli* Dwight**

## DUSKY HORNED LARK

Synonyms—*Eremophila alpestris*; *Otocoris alpestris leucolaema*, part; *Otocoris alpestris rubea*, part.

Status—Common resident of the Modoc region of northeastern California. Recorded as summering west to Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 118), and south to Donner, Nevada County (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, p. 836). Occurs in winter widely through northern California, south to Lake Tahoe (C. Barlow, Condor, iii, 1901, p. 167) and Stockton (Oberholser, *loc. cit.*), and west to Upper Lake, Lake County, and Yreka, Siskiyou County (J. Grinnell, Condor, vi, 1904, p. 52).

**285 (474c) *Otocoris alpestris leucolaema* (Coues)**

## DESERT HORNED LARK

Synonym—*Otocoris alpestris arenicola*, part.

Status—Winter visitant to the Inyo region of extreme eastern California; casual west of the Sierras at Stockton (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, pp. 820, 824). Recorded by the same authority as breeding on the White Mountains, Mono or Inyo county.

**286 (—) *Otocoris alpestris ammophila* Oberholser**

## MOHAVE HORNED LARK

Synonyms—*Otocoris alpestris arenicola*, part; *Otocoris alpestris pallida*, part; Desert Horned Lark, part.

Status—Common resident locally in the valleys of the Mohave desert and southern part of the Inyo region; recorded from northern part of Owens Valley and Panamint Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 66) southeast to Ivanpah Valley, San Bernardino County (Hollister, Auk, xxv, 1908, p. 460), and southwest to Mohave, Kern County (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, p. 851), Victorville, San Bernardino County (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 76; Mus. Vert. Zool.), and, casually, to Santa Ysabel, San Diego County (Oberholser, *loc. cit.*).

**287 (474j, part) *Otocoris alpestris leucansiptila* Oberholser**

## YUMA HORNED LARK

Synonym—*Otocoris alpestris pallida*, part.

Status—Common resident locally in the bed of the Colorado desert. Recorded from Coyote Well, Imperial County, east to Yuma (Oberholser, Proc. U. S. Nat. Mus., xxiv, 1902, p. 865), and northwest to Mecca, Riverside County (Mus. Vert. Zool.).

**288 (474n) *Otocoris alpestris insularis* Townsend**

## ISLAND HORNED LARK

Synonyms—*Otocoris alpestris strigata*, part; *Otocoris alpestris rubea*, part;

*Otocoris insularis*; *Phileremos cornutus*, part; *Otocoris alpestris*, part; *Eremophila alpestris* var. *chrysoleama*, part; Streaked Horned Lark, part.

Status—Common resident on all of the Santa Barbara Islands: San Clemente (Townsend, Proc. U. S. Nat. Mus., XIII, 1890, pp. 140, 141; and many other records), Santa Catalina (Bendire, Life Hist., II, 1895, p. 347; and others), San Nicolas (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 10; and others), Santa Barbara Island (J. G. Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 78; and other records), Anacapa (Willett, Condor, XII, 1910, p. 172), Santa Cruz Island (Henshaw, Rep. Wheeler Surv., 1876, p. 248; and others), Santa Rosa Island (Townsend, *loc. cit.*), and San Miguel (Streator, Orn. & Ool., XIII, 1888, p. 54; and others). Of casual occurrence in winter on the mainland coast: Alamitos Bay, Los Angeles County, "December 4" [= January 18] (Linton, Condor, X, 1908, p. 181).

289 (475)

***Pica pica hudsonia* (Sabine)**

BLACK-BILLED MAGPIE

Synonyms—*Pica pica*; *Pica hudsonica*; *Pica melanoleuca hudsonica*; American Magpie.

Status—Common resident in Transition and Upper Sonoran zones northeast of the Sierran divide, that is, in the Modoc region. Recorded south along the eastern margin of the state through the Tahoe district to Mono Lake (W. K. Fisher, Condor, IV, 1902, p. 11) and even to Independence, Inyo County (Swarth, MS), and west along the northern boundary as far as Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 118).

290 (476)

***Pica nuttalli* (Audubon)**

YELLOW-BILLED MAGPIE

Synonyms—*Corvus nuttalli*; *Corvus pica*; *Pica melanoleuca nuttalli*; *Pica melanoleuca*; *Cleptes nuttalli*; *Pica caudata* var. *nuttalli*.

Status—Common resident locally in Upper and Lower Sonoran zones west of the Sierra Nevada, chiefly in the San Joaquin-Sacramento basin. Recorded north as far as Red Bluff, Tehama County (Townsend, Proc. U. S. Nat. Mus., X, 1887, p. 211; Mus. Vert. Zool.); west, north of the latitude of San Francisco Bay, to Mount Saint Helena (W. K. Fisher, Condor, II, 1900, p. 137), east to Clipper Gap, Placer County (Adams, Placer Co. Inst. Res., 1909, p. 35); south in the San Joaquin Valley to the Tulare Lake region (Goldman, Condor, X, 1908, p. 204), and vicinity of Visalia (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 86); west, south of San Francisco Bay, to Watsonville, Santa Cruz County (Hunter, Condor, VI, 1904, p. 24), and to the coast of southern Monterey County (Jenkins, Condor, VIII, 1906, p. 127); south through the inner coastal valleys as far as Santa Paula, Ventura County (Evermann, Auk, III, 1886, p. 181) and formerly or rarely to Simi and Conejo valleys, Ventura County (Willett, Pac. Coast Avif. no. 7, 1912, p. 67). Now less common and much more restricted in range than formerly. There are early records for San Francisco, San Jose, Santa Cruz, Monterey, Santa Barbara, and even San Diego. The last named station may, however, have been given erroneously.

**291 (478a)      *Cyanocitta stelleri frontalis* (Ridgway)**

## BLUE-FRONTED JAY

Synonyms—*Cyanocitta stelleri*, part; *Cyanura stelleri*, part; *Cyanura stelleri frontalis*, part; *Cyanocorax stelleri*.

Status—Common resident of Transition and Canadian along the whole length of the Sierra Nevada, and on the mountains of southern California from those of Ventura County southeast to the Cuyamaca Mountains in San Diego County; also in the Warner Mountains, Modoc County (Mus. Vert. Zool.) and in the northern inner coast ranges from Siskiyou County south to Mount Saint Helena (W. K. Fisher, Condor, II, 1900, p. 137), and Mount George, east of Napa Valley (A. O. U. Check-List, 3rd ed., 1910, p. 223); also in vicinity of Santa Margarita, San Luis Obispo County (Swarth, Condor, XIII, 1911, p. 163). Recorded as reaching the coast of Sonoma County (J. Mailliard, Condor, X, 1908, p. 134; Mus. Vert. Zool.), but otherwise replaced in the humid coast belt by *C. s. carbonacea*. Westernmost records of *frontalis* in extreme northern California are Walker P. O., Siskiyou County (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 9), and Helena, Trinity County (L. Kellogg, Condor, XIII, 1911, p. 119); intergradation with *carbonacea* takes place in about the longitude of those places. Not recorded from the desert ranges southeast of the Sierra Nevada. There is a partial winter movement down into the western foothills of the Sierras, and even out onto the valleys sporadically; thus *frontalis* has been recorded in winter from Santa Barbara (Streator, Orn. & Ool., XI, 1886, p. 66); Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 124), Stockton (Sampson, Condor, III, 1901, p. 37), and Marysville (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 422).

**292 (478e)      *Cyanocitta stelleri carbonacea* Grinnell**

## COAST JAY

Synonyms—*Cyanocitta stelleri*, part; *Cyanura stelleri*, part; *Cyanura stelleri frontalis*, part; Steller Jay.

Status—Common resident of the Transition zone in the humid coast belt from southern Monterey County north to the Oregon line. Recorded east to Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 9), and to mountains on west side of Napa Valley (A. O. U. Check-List, 3rd ed., 1910, p. 223); also east of San Francisco Bay, at Berkeley (J. Grinnell, Condor, XVI, 1914, p. 33), in Calaveras Valley, Santa Clara County (Carriger and Ray, Condor, XIII, 1911, pp. 73, 74), and on Mount Diablo (Mus. Vert. Zool.). Recorded in winter east at the south to the Gabilan Mountains, San Benito County (A. O. U. Check-List, *loc. cit.*). A hiatus exists in the range of this subspecies along the north coast in Sonoma County, from the vicinity of Freestone to Cazadero, this interval being occupied by the race *frontalis* which appears to have pushed its way westward from the interior through the humid coast belt (series of specimens in Mus. Vert. Zool.).

**293 (480)                   Aphelocoma woodhousei (Baird)**

## WOODHOUSE JAY

Status—Fairly common resident locally in arid parts of the Upper Sonoran zone east of the Sierran divide. Recorded as follows: between Chat and Beckwith Pass, eastern Lassen County (Ray, Osprey, v, 1901, p. 117); White, Inyo, Argus, Coso, and Panamint mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 69); east slope of Sierra Nevada, near Carroll Creek, Inyo County (Mus. Vert. Zool.); Providence Mountains, northeastern San Bernardino County (F. Stephens, Condor, v, 1903, p. 102); New York Mountain, at eastern end of Providence Range (Hollister, Auk, xxv, 1908, p. 460).

**294 (481+481b)   Aphelocoma californica californica (Vigors)**

## CALIFORNIA JAY

Synonyms—*Garrulus californicus*; *Cyanocitta californica*; *Cyanocorax californicus*; *Garrulus ultramarinus*; *Corvus ultramarinus*; *Cyanocitta floridana californicus*, part; *Aphelocoma floridana* var. *californica*; *Aphelocoma californica obscura*; Belding Jay.

Status—Common resident of the Upper Sonoran zone, chiefly west of the Sierran divide. Ranges locally up into Transition, especially in the humid coast belt. Occurs on the east slope of the Sierras as well as on the west, in some places, as near Owens Lake (Bendire, Life Hist., II, 1895, p. 374; Mus. Vert. Zool.), Mono Lake (W. K. Fisher, Condor, iv, 1902, p. 11), and northeastward through the Modoc region to west and east bases of the Warner Mountains (Mus. Vert. Zool.). Northernmost record along or near the coast: Hoopa Valley, Humboldt County (W. K. Fisher, Condor, vi, 1904, p. 51), next interiorly, Helena, Trinity County (Mus. Vert. Zool.). Abundant south through the coast region the whole length of the state. In the San Diegan district the species occurs on the desert slopes of the mountain ranges, but has not been observed beyond their eastern bases. There appear to be no adequate grounds for the recognition of a subspecies *obscura* in extreme southern California (see J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, pp. 261-262).

**295 (481.1)                   Aphelocoma insularis Henshaw**

## SANTA CRUZ ISLAND JAY

Synonyms—*Cyanocitta floridana* var. *californica*, part; Santa Cruz Jay.

Status—Common resident on the wooded portions of Santa Cruz Island (see Willett, Pac. Coast Avif. no. 7, 1912, p. 68).

**296 (485)                   Perisoreus obscurus obscurus Ridgway**

## OREGON JAY

Synonym—*Cractes obscurus*.

Status—Fairly common resident in Transition and Boreal in the northern humid coast belt. Recorded repeatedly from the vicinity of Humboldt Bay; also from Orick, Humboldt County (Ferry, Condor, x, 1908, p. 42), and from near Mendocino, Mendocino County (Heller, Condor, iv, 1902, p. 46); the latter is the southernmost record.

297 (485a) **Perisoreus obscurus griseus** Ridgway

## GRAY JAY

Synonyms—*Perisoreus canadensis*; *Perisoreus canadensis* var. *obscurus*; *Perisoreus obscurus*, part; *Cractes obscurus griseus*; Oregon Jay, part; Canada Jay.

Status—Fairly common resident locally in the Boreal zone of northern California east of the humid coast belt. Recorded as follows: near Camp Bidwell [= Warner Mountains?] (Henshaw, Rep. Wheeler Surv., 1879, p. 308); Warner Mountains, towards southern end (Mus. Vert. Zool.); Spanish Springs Camp, near Beswick, Shasta County (Ferry, Condor, x, 1908, p. 42); Mount Shasta and Mount Lassen (Feilner, Ann. Rep. Smiths. Inst., 1865, pp. 421, 427). There is a record from Summit and Castle Peak, Nevada County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 423), but this has never been corroborated.

298 (486) **Corvus corax sinuatus** Wagler

## WESTERN RAVEN

Synonyms—*Corvus corax*; *Corvus carnivorus*; *Corvus corax carnivorus*; *Corvus cacalotl*; *Corvus catatol*; *Corvus corax clarionensis*; Mexican Raven; American Raven; Colorado Raven.

Status—Common resident locally throughout the state, on the most arid deserts and in the northern humid coast belt as well as in the interlying area. Now scarce or absent in the most thickly settled counties. Notably numerous on and around the islands of the Santa Barbara group. Specimens from there have been assigned to another form, *clarionensis*; but comparison of all available material discloses to me no grounds for distinguishing more than one form of raven within the state.

299 (488b) **Corvus brachyrhynchus hesperis** Ridgway

## WESTERN CROW

Synonyms—*Corvus americanus*; *Corvus ossifragus*; *Corvus caurinus*; *Corvus frugivorus*; *Corvus frugivorus caurinus*; *Corvus americanus caurinus*; *Corvus americanus hesperis*; California Crow; Common Crow.

Status—Common resident of the interior valleys west of the Sierran divide, and of the seacoast and adjacent valleys from Monterey County northward, including the San Francisco Bay region. Fairly common locally in the lowlands of the San Diegan district, south to Campo, breeding (Mus. Vert. Zool.). Not recorded east of the Sierran divide except in extreme northern California where noted east to Fort Crook, eastern Shasta County (Henshaw, Rep. Wheeler Surv., 1879, p. 303) and at Eagle Lake, Lassen County (J. and J. W. Mailliard, MS); also at Brawley in the Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 132). The crows of the northwest coast might be expected to approach *caurinus*, under which name they have been frequently recorded, which, however, they do not seem to do, according to the material at hand.

**300 (491)                      *Nucifraga columbiana* (Wilson)**

CLARKE NUTCRACKER

Synonyms—*Picicorvus columbianus*; Clarke Crow.

Status—Common resident of high Transition, Canadian and Hudsonian zones of the Sierra Nevada along their whole length, on the Panamint, Inyo and White mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 72), and on the high mountains of southern California from Mount Pinos, Ventura County (A. K. Fisher, *loc. cit.*) southeast to the San Jacinto and Santa Rosa mountains (Mus. Vert. Zool.). At the north, common on the Warner Mountains, Modoc County (Mus. Vert. Zool.), west to the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 10), head of Bear Creek, Trinity County (Mus. Vert. Zool.), and south on the highest of the northern inner coast ranges as far as South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 42; Mus. Vert. Zool.). Although there is a temporary vertical movement to slightly lower altitudes in late summer, the species is remarkably stationary. There are but two records of casual occurrence away from the near vicinity of its breeding range: Point Reyes, Marin County, November 19, 1900 (J. Mailliard, Condor, III, 1901, p. 16), and Laguna Mountain, San Diego County, as a possible transient (Willett, Pac. Coast Avif. no. 7, 1912, p. 69).

**301 (492)                      *Cyanocephalus cyanocephalus* (Wied)**

PINYON JAY

Synonyms—*Gymnokitta cyanocephala*; Maximilian Jay.

Status—Common resident locally of arid Upper Sonoran and Transition chiefly along the eastern base of the Sierra Nevada and ranges of southern California, and on the desert ranges of the Inyo district. Recorded north to Fort Crook, eastern Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1877, p. 213), and north base of Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 121); south to San Jacinto Mountains (Mus. Vert. Zool.), and Laguna Mountain, San Diego County (Willett, Pac. Coast Avif. no. 7, 1912, p. 69). Its permanent habitat is closely coincident with the presence of the pinyon (*Pinus monophylla*) and juniper (*Juniperus occidentalis*). But the species is disposed to undertake wanderings, when flocks appear sporadically in remote places irrespective of season or faunal conditions. In this category are the occurrences at Pasadena in fall of 1894 (Gaylord, Nidologist, III, 1896, p. 106), in San Bernardino in October, 1914 (Wall, Condor, XVII, 1915, p. 59), Pacific Grove, near Monterey, in December, 1895 (J. Mailliard, Auk, xv, 1898, p. 198), Berkeley, October 5, 1911 (J. Grinnell, Condor, XVI, 1914, p. 33), Clipper Gap, Placer County, in December, 1908 (Adams, Placer Co. Inst. Res., 1909, p. 36), and Eureka, Humboldt County, February 2, 1912 (specimen taken by F. J. Smith, in Mus. Vert. Zool.).

**302 (494)                      *Dolichonyx oryzivorus* (Linnaeus)**

BOBOLINK

Status—Rare transient; four records: Redwood City, female taken Sep-

tember 17, 1897 (Littlejohn, Bull. Cooper Orn. Club, 1, 1899, p. 73); Monterey, female taken October 14, 1896 (Breninger, Bull. Cooper Orn. Club, 1, 1899, p. 93); Mono Lake, a flock in September, 1901 (W. K. Fisher, Condor, iv, 1902, p. 11); San Bruno Lake, San Mateo County, male taken between June 5 and 10, 1911 (W. P. Taylor, Condor, XIII, 1911, p. 211).

**303 (495, part) *Molothrus ater artemisiae* Grinnell**

NEVADA COWBIRD

Synonyms—*Melanothrus ater*; *Molothrus pecoris*, part; *Molothrus ater*, part.

Status—Rather rare in summer east of the Sierra Nevada, in the Modoc and Inyo regions: ten miles north of Alturus, Modoc County (Mus. Vert. Zool.); Camp Independence, Inyo County (Hoffman, Bull. U. S. Geol. & Geog. Surv. Terr., vi, no. 2, 1881, p. 229); Death Valley, Inyo County, June 20 (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 73; specimen examined by me). The record from the "Sacramento Valley" (Baird, Pac. R. R. Rep., ix, 1858, p. 524) is rather more likely to pertain to this form than to the next. Casual visitant to the Farallon Islands, June 2 (Dawson, Condor, XIII, 1911, p. 181). I have examined an adult male specimen typical of *artemisiae* taken at Borego Spring, eastern San Diego County, April 30, 1896; this is in the Stephens collection, and with little doubt was a migrant. Recorded also from Yermo, Mohave Desert, June 1 to 7, 1911 (Lamb, Condor, xiv, 1912, p. 37).

**304 (495a) *Molothrus ater obscurus* (Gmelin)**

DWARF COWBIRD

Synonyms—*Molothrus ater*, part; *Molothrus pecoris*, part; Cow Blackbird.

Status—Common in summer on the Colorado Desert, keeping in the near vicinity of water. Recorded all along the Colorado River north to the Nevada line (Hollister, Auk, xxv, 1908, p. 460; and many other records); northwest to Independence, Inyo County (Mus. Vert. Zool.); west to Mecca, at northwest end of Salton Sea (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 281) and to Borego Spring, San Diego County (specimen in Stephens coll. examined by me); northwest to Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 37). Positively identified from vicinity of Bakersfield, Kern County (Swarth, Condor, XIII, 1911, p. 161), Buena Vista Lake, Kern County, breeding (J. Mailliard, Condor, xvi, 1914, p. 261), and from valley of South Fork of Kern River near Weldon (Mus. Vert. Zool.). A cowbird, probably of this subspecies, though not definitely so determined, has been recorded as breeding on the Pacific slopes of Los Angeles and Ventura counties (Law, Condor, xii, 1910, p. 174; Willett, Pac. Coast Avif. no. 7, 1912, p. 70), and as occurring in the Fresno district (Tyler, Pac. Coast Avif. no. 9, 1913, pp. 67-68). Occurs in winter on the lower Colorado River (Daggett, Condor, iv, 1902, p. 39; Coues, Proc. Acad. Nat. Sci. Phila., 1866, p. 90), and northwest to Mecca (Van Rossem, Condor, XIII, 1911, p. 132); also specimen (no. 21274, Mus. Vert. Zool.) from San Diego, December 10, 1911.

**305 (497) Xanthocephalus xanthocephalus (Bonaparte)**

## YELLOW-HEADED BLACKBIRD

Synonyms—*Agelaius xanthocephalus*; *Xanthocephalus longipes*; *Xanthocephalus icterocephalus*.

Status—Common in summer in the vicinity of lakes and marshes in the northeastern plateau area and in the San Joaquin-Sacramento basin; of irregular occurrence elsewhere, almost everywhere within the state, except in the northwest coast belt and in the rougher mountainous sections. Recorded as breeding west locally to San Jose (Van Denburgh, Proc. Amer. Philos. Soc., xxxviii, 1899, p. 168), and south to Nigger Slough, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 32), Bear Valley, San Bernardino County (Morcom, Ridgw. Orn. Club, Bull. no. 2, 1887, p. 47), and San Jacinto Lake, Riverside County (Willett and Jay, Condor, xiii, 1911, p. 160). Winters irregularly in the San Diegan district and on suitable parts of the Colorado desert. Appears during migration at many localities both on the desert and western slopes; but not recorded at any season in northwestern California west of the west base of Mount Shasta and north of Petaluma, nor from any of the islands.

**306 (499) Agelaius phoeniceus californicus Nelson**

## BI-COLORED RED-WINGED BLACKBIRD

Synonyms—*Agelaius phoeniceus*, part; *Agelaius gubernator*, part; *Agelaius phoeniceus gubernator*, part; *Agelaius gubernator californicus*, part; *Agelaius californicus*; Bi-colored Blackbird, part; Red-shouldered Blackbird; Swamp Blackbird, part; Red-winged Blackbird, part.

Status—Abundant resident of the San Francisco Bay region, in typical form north to Freestone and Santa Rosa, Sonoma County (Mus. Vert. Zool.), east to Suisun and south at least to Santa Cruz; less typically, or of unknown status north to Red Bluff, Tehama County, east to the Sierran foothills, and south through the San Joaquin Valley at least to Stanislaus County (J. Mailliard, Condor, xi, 1910, p. 66). Very great confusion has evidently existed in the separation of this blackbird from the red-and-buff shouldered type, and I am not at all certain of the standing of many records. Mr. W. W. Cooke of the U. S. Bureau of Biological Survey has kindly looked up the basis of the A. O. U. Check-List (Third Edition, 1910, p. 235) statement that *californicus* straggles east to Owens Lake, and reports that the bird was really "*neutralis*" (doubtless the more recently separated *nevadensis*). *Californicus*, or "*gubernator*", as it used to be called, according to material now available for examination and also according to the careful studies by J. Mailliard (*loc. cit.*) appears to have its center of range, geographically and subspecifically, in the region close about San Francisco Bay, and does not occur, at farthest, south of the 36th parallel.

**307 (498e, part) Agelaius phoeniceus neutralis Ridgway**

## SAN DIEGO RED-WINGED BLACKBIRD

Synonyms—*Agelaius phoeniceus*, part; *Agelaius phoeniceus sonoriensis*,



part; *Agelaius phoeniceus longirostris*, part; *Icterus phoeniceus*; *Agelaius gubernator*, part; *Agelaius phoeniceus gubernator*, part; *Agelaius gubernator californicus*, part; Bi-colored Blackbird, part; Red-winged Blackbird, part; Swamp Blackbird, part; Western Red-wing.

Status—Abundant resident locally in southern California chiefly west of the desert divide; east to Jacumba, San Diego County (Ridgway, Proc. Wash. Acad. Sci., III, 1901, p. 153); north coastwise at least to Monterey County, and through the southern San Joaquin Valley as far as Stanislaus County (J. Mailliard, Condor, XII, 1910, p. 63). As shown by J. Mailliard (*loc. cit.*) there is a large area in central California occupied by individuals of various degrees of intermediateness towards *A. p. californicus*. *A. "phoeniceus"* (as distinct from *californicus*) has been recorded as breeding at Berryessa, Santa Clara County (C. Barlow, Condor, II, 1900, p. 132), but I have had no opportunity of verifying the occurrence. Very many records of "Bi-colored" Blackbirds, as, for instance, all those from south of the 36th parallel, were doubtless based on birds better referable to *neutralis*.

**308** (—) ***Agelaius phoeniceus aciculatus*** Mailliard

KERN RED-WINGED BLACKBIRD

Status—Common resident locally in mountain valleys of east-central Kern County: in Walker Basin and along South Fork of Kern River (J. Mailliard, Condor, XVII, 1915, p. 13).

**309** (498a) ***Agelaius phoeniceus sonoriensis*** Ridgway

SONORA RED-WINGED BLACKBIRD

Synonyms—*Agelaius phoeniceus*, part; *Agelaius phoeniceus longirostris*, part.

Status—Common resident locally along the Colorado River from Needles to Yuma (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 161), thence west and north through the Imperial Valley at least to Mecca, at the northwestern end of Salton Sea (Mus. Vert. Zool.).

**310** (498e, part) ***Agelaius phoeniceus nevadensis*** Grinnell

NEVADA RED-WINGED BLACKBIRD

Synonyms—*Agelaius phoeniceus*, part; *Agelaius phoeniceus neutralis*, part; *Agelaius gubernator*, part; *Agelaius gubernator californicus*, part; Bi-colored Blackbird, part; San Diego Redwing, part; Red-winged Blackbird, part.

Status—Common resident in associationally suitable parts of the Modoc and Inyo subfaunal areas. Recorded west at the north to Mayten, Siskiyou County, and Meadow Valley, Plumas County; south, east of the Sierra Nevada, to Lone Pine, Inyo County. (See J. Grinnell, Proc. Biol. Soc. Wash., XXVII, 1914, p. 107.)

**311** (498f) ***Agelaius phoeniceus caurinus*** Ridgway

NORTHWESTERN RED-WINGED BLACKBIRD

Synonyms—*Agelaius phoeniceus*, part; *Agelaius gubernator*, part.

Status—Occurs scatteringly in summer in the northwestern part of the

state; only two published records under this name, though others probably belong here: Mendocino County (Ridgway, Proc. Wash. Acad. Sci., III, 1901, p. 153), and Mount Sanhedrin, Mendocino County (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 582).

312 (500)

**Agelaius tricolor** (Audubon)

TRI-COLORED RED-WINGED BLACKBIRD

Synonyms—*Icterus tricolor*; *Agelaius phoeniceus* var. *tricolor*; Tri-colored Blackbird; Red-and-white-shouldered Blackbird.

Status—Common resident locally in the interior valleys west of the Sierran divide and south through the San Diegan district. Recorded north to Shasta County, east to Lake Tahoe and near Weldon, Kern County (Mus. Vert. Zool.), and west to the coast district of central and southern California. The San Joaquin Valley seems to be now the metropolis of this species. Not recorded east of the Sierran divide, save as breeding at Lake Tahoe (C. Barlow, Condor, III, 1901, p. 168), nor in northwestern California north of Marin County, where recorded only as a straggler (J. Mailliard, Condor, II, 1900, p. 65). Westernmost breeding station: Sargents, Santa Clara County (C. Barlow, Condor, II, 1900, p. 132).

313 (501.1)

**Sturnella neglecta** Audubon

WESTERN MEADOWLARK

Synonyms—*Sturnella magna neglecta*; *Sturnella hippocrepus*; Western Lark.

Status—Abundant resident in appropriate localities practically throughout the state, with the exception of the most arid and barren deserts, roughest mountains and densest forests. Breeds from Lower Sonoran, as at Victorville, on the Mohave desert (Mus. Vert. Zool.), up through Transition, in the northwest coast belt and on mountain meadows. In these highest localities, which are subject to snowfall, there is evidently an exodus of meadowlarks for the winter, and in complementary fashion many birds winter on suitable portions of the Colorado and Mohave deserts, where the species is unknown in summer. Recorded as breeding both east and west of the Sierras, in arid and humid belts, and on nearly all of the coastal islands; but no geographic variation has been detected among the specimens examined.

314 (504)

**Icterus parisorum** Bonaparte

SCOTT ORIOLE

Status—Common summer visitant to extreme arid Upper Sonoran zone of the southeastern portion of the state. Characteristic of portions of the pinyon, tree yucca, and agave associations. Common on the desert slopes of the Santa Rosa and San Jacinto mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 264), at the west base of the Sierra Liebre in Antelope Valley, northern Los Angeles County (J. Grinnell, Condor, XII, 1910, p. 46), on the west slope of the Sierra Nevada in Walker Pass, Kern County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 76; Mus. Vert. Zool.), and along the isolated ranges of the

Inyo region north as far as the Inyo Mountains (Fisher, *loc. cit.*); southeast to the Providence Mountains (F. Stephens, Condor, v, 1903, p. 102). Occurs west through San Diego County even to San Diego where recorded as nesting (Browne, Auk, viii, 1891, p. 238; Stephens, Condor, iii, 1901, p. 94; etc.). Of casual occurrence in migration elsewhere on the Pacific slope of the San Diegan district, west to Los Angeles County: Los Angeles, Garnsey and Glendora (J. Grinnell, *loc. cit.*), and even to Santa Barbara (Dawson, Condor, xv, 1913, p. 158).

**315 (505a) *Icterus cucullatus nelsoni* Ridgway**

ARIZONA HOODED ORIOLE

Synonyms—*Icterus cucullatus*; *Icterus nelsoni*; Palm Leaf Oriole.

Status—Common summer visitant locally in the Lower Sonoran zone of the Colorado desert and San Diegan district. Recorded as breeding in the latter area from San Diego northwest as far as Santa Barbara (many records). Casual on Santa Catalina Island (C. H. Richardson, Condor, x, 1908, p. 67), and at Auburn, Placer County (Bendire, Life Hist., ii, 1895, p. 476). The latter is the only definite record north of the latitude of Santa Barbara, though there is a persistent rumor of its recent invasion of the Tulare district. The species breeds in the vicinity of Yuma and has been noted a short distance up the lower Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 163), but is unknown from the Mohave desert or Inyo district.

**316 (508) *Icterus bullocki* (Swainson)**

BULLOCK ORIOLE

Synonyms—*Hyphantes bullocki*; *Xanthornis bullocki*; Western Oriole.

Status—Abundant summer visitant in many parts of the state—from the Nevada line to the seacoast, and from the Oregon line to the Mexican boundary. Of very general zonal and faunal preferences: breeds from Lower Sonoran up through Transition, and from the riparian association on the deserts (as along the Colorado River) to the San Francisco Bay region. Of least abundance in the northwest coast belt and on the Santa Barbara Islands, though there are records from both. Occurs in migration even on the arid portions of the southeastern deserts, and up into the high mountains. Centers of abundance are the interior valleys north of Tehachapi.

**317 (509) *Euphagus carolinus* (Müller)**

RUSTY BLACKBIRD

Synonym—*Scolecophagus carolinus*.

Status—Rare mid-winter visitant. Two records: male taken by H. B. Kae-  
ding in Amador County, December 15, 1895 (J. Mailliard, Condor, vi, 1904, p. 16); male, taken by C. B. Linton, on San Clemente Island, "December" (really November 20), 1908 (Linton, Condor, xi, 1909, p. 194). I have examined both specimens; the first is in the Mailliard collection (no. x2185), the second, recently in the Thayer Museum, now, by donation from J. E. Thayer, no. 21271 Mus. Vert. Zool.

**318 (510) Euphagus cyanocephalus (Wagler)**

## BREWER BLACKBIRD

Synonyms—*Quiscalus mexicanus*; *Quiscalus purpureus*; *Scolecophagus mexicanus*; *Scolecophagus ferrugineus*; *Scolecophagus cyanocephalus*.

Status—Abundant resident of the Upper Sonoran zone, breeding also locally up through Transition and even into Boreal, and wintering also in suitable places down through Lower Sonoran. Breeds the whole length of the state—at the north chiefly east of the Sierran divide, south, east of the Sierras, to Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 156), west of the Sierras through the Sacramento Valley and marginal foothills of the San Joaquin Valley, and coastally from the San Francisco Bay region south through the San Diegan district. Rare in the northwest coast belt; northwesternmost station, Hoopa Valley, Humboldt County. Casual on the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 47), and on certain of the Santa Barbara islands. Occurs in numbers in winter on the Colorado and Mohave deserts.

**319 (514a) Hesperiphona vespertina montana Ridgway**

## WESTERN EVENING GROSBEAK

Synonyms—*Hesperiphona vespertina*; *Coccothraustes vespertina*; *Coccothraustes vespertinus montanus*.

Status—Fairly common in summer locally in Boreal on the high Sierra Nevada, from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 122) south at least to Yosemite Valley (Emerson, Zool. iv, 1893, p. 180; Widmann, Auk, xxi, 1904, p. 69); also on the Warner Mountains (Mus. Vert. Zool.) and Trinity Mountains (Mus. Vert. Zool.). In midwinter widely, but very irregularly and for the most part sparingly, distributed west of the Sierran divide to the coast; southernmost recorded occurrence: Pasadena and Mount Wilson, Los Angeles County (Gaylord, Nidologist, III, 1896, p. 106; Swarth, Condor, III, 1901, p. 17).

**320 (515b) Pinicola enucleator californica Price**

## CALIFORNIA PINE GROSBEAK

Synonyms—*Pinicola enucleator*; *Pinicola canadensis*; *Pinicola californica*; *Pinicola enucleator kodiaka*; *Pinicola enucleator* var. *canadensis*.

Status—Fairly common but very local resident of Boreal on the high central Sierra Nevada: Soda Springs and Summit, Placer County (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 8; Belding, Bull. Nutt. Orn. Club, III, 1878, p. 66; Belding, Land Bds. Pac. Dist., 1890, p. 131); vicinity of Pyramid Peak, Eldorado County, and Silver Lake, Amador County (Price, Auk, xiv, 1897, p. 182; Ray, Condor, xiv, 1912, pp. 157, 158); Blood's, Calaveras County (Belding, Land Bds. Pac. Dist., 1890, p. 131); Independence Lake, Nevada County (Mus. Vert. Zool.); head of San Joaquin River in Madera or Fresno county (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 79). The lowest elevation in the state at which the

species has been found at any season is Cisco Butte, 6500 feet, Placer County, October 6, 1913 (Mus. Vert. Zool.).

**321 (517a)            *Carpodacus purpureus californicus* Baird**

CALIFORNIA PURPLE FINCH

Synonyms—*Erythrospiza purpurea*; *Carpodacus purpureus*; *Carpodacus californicus*; Western Purple Finch.

Status—Common resident locally of high Upper Sonoran and low Transition zones west of the desert divide; occurs throughout the northern humid coast belt and along the coast ranges and lower west slopes of the Sierra Nevada south to the San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 266), Palomar Mountains (McGregor, Bull. Cooper Orn. Club, 1, 1899, p. 68) and Cuyamaca Mountains (Mus. Vert. Zool.); more widely distributed through the intervening valleys in winter, and even south to San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 131), casually to Santa Cruz Island (Linton, Condor, x, 1908, p. 128), but not east of the Sierras at any season. Easternmost records: at the north, Mount Lassen (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 215); centrally, Mount Whitney region, casual in October (Henshaw, Rep. Wheeler Surv., 1876, p. 238; this occurrence verified in November, 1911, by Mr. Henshaw at my request from the Smithsonian records).

**322 (518)            *Carpodacus cassini* Baird**

CASSIN PURPLE FINCH

Status—Common resident of the Transition and Boreal zones, chiefly in their semi-arid portions: Warner Mountains (Mus. Vert. Zool.); Sierra Nevada, chiefly along the eastern slope, from Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 215) south to Piute Mountains, Kern County (C. H. Richardson, Condor, vi, 1904, p. 136); South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 42; Mus. Vert. Zool.); White and Inyo mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 79); Mount Pinos (J. Grinnell, Auk, xxii, 1905, p. 385); San Gabriel Mountains (J. Grinnell, Bds. Los Angeles Co., 1898, p. 34); San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 89); San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 267). Sparingly in midwinter to adjacent foothills, and casually west to San Jose (C. Barlow, Condor, ii, 1900, p. 132), and Los Angeles (Swarth, Condor, iii, 1901, p. 66).

**323 (519)            *Carpodacus mexicanus frontalis* (Say)**

CALIFORNIA LINNET

Synonyms—*Erythrospiza frontalis*; *Carpodacus frontalis*, part; *Carpodacus familiaris*; *Carpodacus rhodocolpus*; *Carpodacus frontalis rhodocolpus*, part; *Fringilla frontalis*; *Carpodacus mexicanus obscurus*; *Carpodacus mexicanus clementis*, part; House Finch; Red-headed Linnet; Burion.

Status—Abundant resident throughout the state chiefly below Transition: north along the humid coast belt even to Humboldt Bay (W. K. Fisher, Con-

dor, iv, 1902, p. 133); north, east of the Sierras, through the Warner Mountain region (Mus. Vert. Zool.); on the southeastern deserts only within easy reach of water, usually less than three miles; on the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., i, 1888, p. 47); and on the northern members of the Santa Barbara group of islands (Santa Cruz and probably adjacent islands), but not on San Clemente, Santa Catalina, Santa Barbara, and San Nicolas islands where replaced by the race *clementis*. Wanders in late summer up into the highest mountains, as to 9800 feet in the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 91), and to 9800 feet at Whitney Meadows in Sierras of Tulare County (Mus. Vert. Zool.).

**324 (519c)                    *Carpodacus mexicanus clementis* Mearns**

SAN CLEMENTE LINNET

Synonyms—*Carpodacus frontalis*, part; *Carpodacus mexicanus frontalis*, part; *Carpodacus clementis*; *Carpodacus frontalis rhodocolpus*, part; *Carpodacus frontalis clementae*; San Clemente House Finch.

Status—Common resident on San Clemente, San Nicolas, Santa Barbara and Santa Catalina islands. The characters of this form are most extremely developed in the birds on San Clemente Island. Birds from certain other islands of the Santa Barbara group are variously intermediate toward the mainland form (*frontalis*).

**325 (521, part)                *Loxia curvirostra minor* (Brehm)**

AMERICAN CROSSBILL

Status—Irregular midwinter visitant: Eureka, Humboldt County (Mus. Vert. Zool.); Nicasio, Marin County (J. Grinnell, Condor, xi, 1909, p. 102); Pasadena (Daggett, Bull. Cooper Orn. Club, i, 1899, p. 51); specimens in these cases re-examined by me. Also recorded from Berkeley (J. Grinnell, Condor, xvi, 1914, p. 34). It is probable that several of the records under other subspecific names, for the crossbill in winter in west-central California, really belong here.

**326 (521, part)                *Loxia curvirostra bendirei* Ridgway**

SIERRA CROSSBILL

Synonyms—*Curvirostra americana*; *Loxia americana*; *Loxia curvirostra*; *Loxia curvirostra minor*, part; *Loxia curvirostra* var. *americana*; *Loxia curvirostra stricklandi*; Mexican Crossbill; Red Crossbill.

Status—Fairly common in summer in the Boreal zone on parts of the high Sierra Nevada from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 123) to the vicinity of Mount Whitney (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 81); also on Mount Pinos, Ventura County (J. Grinnell, Auk, xxii, 1905, p. 385), the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 91) and San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., xv, 1913, p. 268). Occurs sporadically elsewhere at almost any place and season: Marin County (J. Mailliard, Condor, ii, 1900, p.

65), Santa Cruz and Olema (W. E. Bryant, Bull. Calif. Acad. Sci., II, 1887, p. 297), Monterey (J. Grinnell, MS), Santa Cruz Island (Howell and Van Rossem, Condor, XIII, 1911, p. 210). Summer (breeding?) birds from the mountains of southern California are larger than those from the central portions of the state and have been referred to *L. c. stricklandi*. But examples more typical of the latter, from Arizona, are still larger, especially with respect to the bill; so that it seems best to include all California birds (not referable to *L. c. minor*) under the name *bendirci*.

**327 (524, part)      *Leucosticte tephrocotis dawsoni* Grinnell**

SIERRA NEVADA ROSY FINCH

Synonyms—*Leucosticte tephrocotis*; Gray-crowned Rosy Finch; Gray-crowned Finch; Gray-crowned Leucosticte.

Status—Fairly common resident locally in the Arctic-Alpine and Hudsonian zones along the crest of the Sierras from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 124) to Mount Whitney (Daggett, Bull. Cooper Orn. Club, I, 1899, p. 119) and Olancha Peak (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 83); also on the White Mountains, Inyo County (A. K. Fisher, *loc. cit.*, p. 82). Other record stations along the Sierras are: Pyramid Peak (C. Barlow, Condor, II, 1900, p. 109), Farewell Gap and Mono Pass (Van Denburgh, Proc. Acad. Nat. Sci. Phila., 1898, p. 213), Mineral King (Dean, Condor, VII, 1905, p. 112); head of south fork of Kings River, Kearsarge Pass, University Peak, Mount Brewer, Harrison's Pass, Mount Lyell, and Mount Gould, and nesting on Pyramid Peak (Ray, Condor, XII, 1910, pp. 147-161); Mammoth Pass, Independence Creek, Big Cottonwood Meadows, Round Valley (A. K. Fisher, *loc. cit.*, p. 83); Crabtree Meadows, Whitney Meadows, Army Pass, Cottonwood Pass (Mus. Vert. Zool.). The altitudes of all of these stations are above 9000 feet. The species has been taken in winter at Lake Tahoe (Hoffman, Bull. U. S. Geol. & Geog. Surv. Terr., VI, no. 2, 1881, p. 223), and in spring on the Inyo Mountains, Inyo County (Mus. Vert. Zool.).

**328 (528)              *Acanthis linaria linaria* (Linnaeus)**

COMMON REDPOLL

Status—Known only as occurring commonly in 1899 from November 30 to December 23 in the vicinity of Eagle Lake, Lassen County (Willard, Condor, IV, 1902, p. 45). Two specimens collected there November 30 and December 13, 1899, are now in Mus. Vert. Zool. (nos. 5542, 5543).

**329 (529b)            *Astragalinus tristis salicamans* (Grinnell)**

WILLOW GOLDFINCH

Synonyms—*Chrysomitris tristis*; *Carduelis tristis*; *Spinus tristis*; *Astragalinus tristis*; *Spinus tristis salicamans*; American Goldfinch; Yellow-bird; Thistle-bird; California Goldfinch.

Status—Common resident locally in the valleys (chiefly Upper Sonoran) west of the desert divides, from the west base of the Sierras to the seacoast, and

from San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 136) north to Smith River, Del Norte County (Ferry, Condor, x, 1908, p. 42), and Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 124). Breeds characteristically in the riparian willow association of the lowlands. The San Joaquin and Sacramento valleys form the metropolis of abundance. No instance of occurrence anywhere east or southeast of the Sierra Nevada, save in midwinter at Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 38), and Palm Springs, Colorado Desert (J. Grinnell, Condor, xiv, 1912, p. 154), and in October at Eagle Lake, Lassen County (two specimens in Mailliard coll.); the latter birds are somewhat larger than the usual *salicamans* of west-central California, thus inclining towards *A. t. pallidus*.

**330 (530a)      *Astragalinus psaltria hesperophilus* Oberholser**

GREEN-BACKED GOLDFINCH

Synonyms—*Chrysomitris psaltria*; *Carduelis psaltria*; *Spinus psaltria*; *Astragalinus psaltria*; *Chrysomitris mexicanus*; *Chrysomitris psaltria* var. *arizonae*; *Spinus psaltria arizonae*; *Astragalinus psaltria arizonae*; Arkansas Goldfinch; Mexican Goldfinch; Arizona Goldfinch; Arkansas Finch.

Status—Common resident nearly throughout the state below Transition, and up into this zone locally as a summer visitant. Not so numerous in the humid coast belt as in the interior and southern coast valleys. Some northern stations are: Sisson and Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 124); Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 10); Eureka, Humboldt County (Mus. Vert. Zool.); Fyffe and Mount Tallac, Eldorado County (C. Barlow and Price, Condor, iii, 1901, p. 170). Not recorded east of the Sierras north of the head of Owens Valley where noted at Benton (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 84), but common locally on the southern deserts. Found casually on the Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., i, 1888, p. 47), and on Santa Catalina Island (J. Grinnell, Auk, xv, 1898, p. 235) and Santa Cruz Island (Linton, Condor, x, 1908, p. 128).

**331 (531)      *Astragalinus lawrencei* (Cassin)**

LAWRENCE GOLDFINCH

Synonyms—*Chrysomitris lawrencei*; *Carduelis lawrencei*; *Spinus lawrencei*.

Status—Fairly common but irregular summer visitant to the Upper Sonoran zone west of the Sierras, and chiefly east of the humid coast belt. Recorded north through the Sacramento Valley to McCloud River, Shasta County (Mus. Vert. Zool.), and, nearer the coast, to Sebastopol, Sonoma County (Belding, Land Bds. Pac. Dist., 1890, p. 138). Casual on Santa Catalina Island (C. H. Richardson, Condor, x, 1908, p. 67) and Santa Cruz Island (J. Mailliard, MS). Easternmost stations centrally: Raymond, Madera County (Widmann, Auk, xxi, 1904, p. 73), and Weldon, Kern County (Mus. Vert. Zool.). Occurs in summer on the mountain ranges of southern California up through Transi-



tion. Winters irregularly in the San Diegan district—some years apparently none at all remain within the state. Recorded in winter east of the desert divide from Colorado Valley near Riverside Mountain (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 166), and Imperial Valley (Van Rossem, Condor, XIII, 1911, pp. 132, 136).

**332 (533)                      *Spinus pinus pinus* (Wilson)**

PINE SISKIN

Synonyms—*Linaria pinus*; *Chrysomitris pinus*; Pine Finch.

Status—Locally common in summer in the Canadian and Transition zones along the Sierras from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 124) and Warner Mountains (Mus. Vert. Zool.) to the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 92) and San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 270); also south through the humid coast belt to southern Monterey County (Jenkins, Condor, VIII, 1906, p. 128). Occurs in winter sporadically in adjacent valleys: occurs at that season at least as far south and east as Jacumba, San Diego County (Mus. Vert. Zool.). Common resident in parts of the San Francisco Bay region: breeds in San Mateo and San Francisco counties (Carriker and Pemberton, Condor, IX, 1907, p. 18), in Marin County (J. Mailliard, Condor, VI, 1904, p. 16), in Santa Clara County (Van Denburgh, Proc. Amer. Philos. Soc., XXXVIII, 1899, p. 171), and at Berkeley (J. Grinnell, Condor, XVI, 1914, p. 34). In cultivated regions affects the vicinity of cypresses and Monterey pines; in wild country that of conifers in general, but forages on the ground in the open.

**333 (—)                      *Passer domesticus* (Linnaeus)**

ENGLISH SPARROW

Synonym—House Sparrow.

Status—Now an abundant resident in closely settled portions of west-central California, more particularly in and around cities. This is true throughout the San Joaquin-Sacramento basin, as well as in the coast district. Less numerous, or of but recent appearance, almost everywhere else in the state, where towns, especially along railroads, offer the proper inducements. The first appearance of the English Sparrow in California was at San Francisco in about 1871 or 1872 (Barrows, bull. 1, U. S. Dept. Agric., Div. Orn. and Mam. [= "English Sparrow Report"], 1889, pp. 19, 201, 262). It is supposed to have been purposely introduced from some point in the eastern states where the species had already become abundant. It is probable, however, that it has repeatedly entered the state along railroad lines, of its own volition or through adventitious transportation in grain and stock cars. By 1886 the English Sparrow had appeared generally throughout the San Francisco Bay region; also at Eureka, Stockton and Hollister (Barrows, *loc. cit.*). In 1888 it had reached Sacramento, Marysville, and Gridley, Butte County (Belding, Land Bds. Pac. Dist., 1890, p. 168). Within a few years practically all suitable parts of California north of the 35th parallel and west of the high Sierras had been

invaded. But southern California was much slower to be populated. English Sparrows were first reported from Santa Barbara in 1909 (Torrey, Condor, xi, 1909, p. 208); from Bakersfield in 1901, and Tehachapi, Kern County, in 1903 (Howard, Condor, viii, 1906, p. 67); from Newhall, Los Angeles County, in 1906 (Law, Condor, ix, 1907, p. 28); from Oxnard, Ventura County, in 1905 (Willett, Pac. Coast, Avif. no. 7, 1912, p. 76); from Simi Valley, Ventura County, in 1907 (Willett, *loc. cit.*); from Santa Paula, Ventura County, in 1910 (Willett, *loc. cit.*); from the city of Los Angeles in 1907 (Willett, *loc. cit.*); from Long Beach, September, 1911 (L. W. Welch, MS); from Corona, Riverside County, October, 1913 (L. H. Miller, MS); San Bernardino in 1912 (W. M. Pierce, MS); San Diego, November, 1913 (Ingersoll, MS); from Banning, Riverside County, in 1910 (Willett, *loc. cit.*).

The ability of this bird to stand almost any climatic extreme, both as to temperature and humidity, is astonishing; as witness the following established colonies: Crescent City, Del Norte County, 1905 (Ferry, Condor, x, 1908, p. 42); Needles, San Bernardino County, 1910 (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 166); Sisson, Siskiyou County, 1911 (H. C. Bryant, Condor, xiii, 1911, p. 205); Holtville, Imperial County, 1910 (H. C. Bryant, MS). The English Sparrow thus stands not for climatic barriers; neither does it hesitate to cross broad water-ways, for it has recently been found on the Farallon Islands (Dawson, Condor, xiii, 1911, p. 181). This is the only exotic species, "introduced" or otherwise, which has firmly established itself as a member of the state's avifauna within our history.

**334 (536a)                    *Calcarius lapponicus alascensis* Ridgway**

ALASKA LONGSPUR

Status—Two instances: female, False Bay, San Diego County, October 2, 1909 (F. Stephens, Condor, xii, 1910, p. 44); female, Gunther's Island, Eureka, October 2, 1909 (Marsden, Condor, xii, 1910, p. 110): both on the same date, and both on the seacoast, though 350 miles apart longitudinally. Mr. Stephens's specimen is now no. 6411 of his collection. Mr. Marsden's is now no. 20809 in the L. B. Bishop collection.

**335 (540a)                    *Poocetes gramineus confinis* Baird**

WESTERN VESPER SPARROW

Synonyms—*Zonotrichia graminea*, part; *Emberiza graminea*; *Poocetes graminea*; Grass Finch; Bay-winged Bunting.

Status—Fairly common in summer locally in high Upper Sonoran and Transition east of the Sierran divide: Modoc County (Mus. Vert. Zool.) south to head of Owens Valley, White Mountains and Inyo Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 85); also on several high Sierran meadows within thirty miles south of Mount Whitney (Mus. Vert. Zool.). Common in winter in the valleys of the San Diegan district northwest to Santa Barbara; more sparingly on the deserts and in the San Joaquin Valley region north to Fresno County (Tyler, Condor, xiii, 1911, p. 76), and Paicines, San Benito County (J. and J. W. Mailliard, Condor, iii, 1901, p. 124).

**336 (540b) Poocetes gramineus affinis Miller**

## OREGON VESPER SPARROW

Synonyms—*Zonotrichia graminea*, part; *Poocetes gramineus confinis*, part.

Status—Fairly common winter visitant locally west of the Sierras and south to Los Angeles County. Definite record stations: Oakland (Willard, Bull. Cooper Orn. Club, I, 1899, p. 30); Battle Creek and Berryessa (McGregor, Condor, II, 1900, p. 35); Pasadena (J. Grinnell, Bds. Los Angeles Co., 1898, p. 36); Newhall and Highland Park, Los Angeles County (Mus. Vert. Zool.).

**337 (542) Passerculus sandwichensis sandwichensis (Gmelin)**

## ALEUTIAN SAVANNAH SPARROW

Synonyms—*Ammodramus sandwichensis*; Sandwich Sparrow; Anolaska Sparrow.

Status—Rare winter visitant to northern California west of the Sierran divide: Butte County (Belding, Land Bds. Pac. Dist., 1890, p. 142); Gridley, Butte County, December 9, and Battle Creek, Shasta County, October 13 (McGregor, Condor, II, 1900, p. 35); Snelling, Merced County, January 6 and 8 (Mus. Vert. Zool.).

**338 (542b) Passerculus sandwichensis alaudinus Bonaparte**

## WESTERN SAVANNAH SPARROW

Synonyms—*Ammodramus sandwichensis alaudinus*, part; *Passerculus alaudinus*; *Passerculus savanna*, part; *Ammodramus sandwichensis savanna*; *Passerculus sandwichensis*, part; *Ammodramus savanna alaudinus*; *Emberiza savanna*; *Passerculus sandwichensis bryanti*, part; Skylark Sparrow.

Status—Abundant winter visitant throughout the lower elevations of the state, occurring also in migration practically everywhere observations have been made. Swarms in greatest profusion on grassy tracts west of the Sierran divide. Recorded also from Santa Cruz Island (Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 141; Linton, Condor, X, 1908, p. 128), and San Clemente Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 17; Linton, Condor, XI, 1909, p. 194).

**339 (542d) Passerculus sandwichensis nevadensis Grinnell**

## NEVADA SAVANNAH SPARROW

Synonyms—*Ammodramus sandwichensis alaudinus*, part; Western Savannah Sparrow, part.

Status—Common in summer in the valleys east of the Sierran divide: Modoc County (Mus. Vert. Zool.); Little Truckee River, Sierra County (J. Grinnell, Univ. Calif. Publ. Zool., V, 1910, p. 314); Owens Lake (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 86). Also an isolated breeding colony in the valley of the Kern River and its South Fork, northeastern Kern County (Mus. Vert.

Zool., specimens not typical). Occurs in winter in suitable places on the deserts of southeastern California, and in the San Diegan district, at least in Los Angeles County (J. Grinnell, *loc. cit.*).

**340 (542c) *Passerculus sandwichensis bryanti* Ridgway**

BRYANT MARSH SPARROW

Synonyms—*Passerculus sandwichensis*, part; *Ammodramus sandwichensis bryanti*, part; *Passerculus sandwichensis alaudinus*, part; *Passerculus anthinus*, part; *Passerculus savanna*, part; *Passerculus savanna* var. *anthinus*, part; Titlark Sparrow, part.

Status—Common resident on the tidal marshes bordering Monterey, San Francisco, Tomales, and Humboldt bays. The metropolis of this subspecies in its most typical characters is the salicornia association of San Francisco Bay, and here in many places it is abundant. The Humboldt Bay representatives (specimens in Mus. Vert. Zool.) are somewhat intermediate in characters towards *alaudinus*. Wherever this form occurs at all it is apparently permanently resident. The two exceptions to this rule are San Luis Obispo, two specimens, October 8 (Maillaird coll.), and Carpinteria, Santa Barbara County, one specimen, December 23 (Brooks, Condor, xv, 1913, p. 182). Three of the recorded instances of occurrence far south of its breeding range have each been found to have been due to probable misidentifications. In each case I have closely examined the specimen upon which the record was based, with the following results: San Pedro (Swarth, Condor, III, 1901, p. 17) = *P. beldingi*; Witch Creek (Bishop, Condor, VII, 1905, p. 142) = *P. s. alaudinus*; Santa Cruz Island (Linton, Condor, x, 1908, p. 128) = *P. s. alaudinus*. The fourth record out of range has not been verified: "Santa Barbara to Carpinteria" (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 86), probably = *P. beldingi*.

**341 (543) *Passerculus beldingi* Ridgway**

BELDING MARSH SPARROW

Synonyms—*Passerculus sandwichensis*, part; *Passerculus anthinus*, part; *Passerculus savanna* var. *anthinus*, part; *Ammodramus beldingi*; *Ammodramus sandwichensis beldingi*; *Ammodramus sandwichensis bryanti*, part; Titlark Sparrow, part.

Status—Common resident on the coastal marshes of southern California from San Diego to Santa Barbara; casual north to Port Harford (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 299). The salt marshes on the coast of the San Diegan district form the typical habitat of this sparrow, and in only rare instances does it stray short distances onto the adjacent higher ground.

**342 (544) *Passerculus rostratus rostratus* (Cassin)**

LARGE-BILLED MARSH SPARROW

Synonyms—*Emberiza rostrata*; *Ammodramus rostratus*; Sea-shore Sparrow.

Status—Common winter visitant to the seacoast of southern California, from San Diego to Santa Barbara; casually to Santa Cruz, specimen taken Aug-

ust 27 (J. Mailliard, Condor, vi, 1904, p. 16), and to San Clemente Island (Breninger, Auk, xxi, 1904, p. 223); also in midwinter at Salton Sea (Van Rossem, Condor, xiii, 1911, p. 132). There is apparently no authentic record of actual breeding within the state; the evidence indicates that the species spends the *summer* somewhere *south* of this state (see J. Grinnell, Auk, xxii, 1905, p. 16).

**343 (546a) *Ammodramus savannarum bimaculatus* Swainson**

WESTERN GRASSHOPPER SPARROW

Synonyms—*Emberiza passerina*; *Coturniculus passerinus*; *Coturniculus passerinus perpallidus*; *Ammodramus savannarum perpallidus*; *Coturniculus savannarum bimaculatus*; Yellow-winged Sparrow.

Status—Sparingly resident locally in the valleys west of the Sierras, from Sacramento (Ridgway, Bull. Essex Inst., vi, 1874, p. 171) south through Los Angeles and Ventura counties (Willett, Condor, xii, 1910, p. 204) to vicinity of San Diego (Huey, Condor, xvii, 1915, p. 60). Other record stations are: Berryessa, Santa Clara County (C. Barlow, Condor, ii, 1900, p. 132); Point Sur, Monterey County (Ray, Osprey, v, 1900, p. 7); Merced County (J. Mailliard, MS); Santa Barbara (Henshaw, Rep. Wheeler Surv., 1876, p. 240; Bowles, Condor, xiii, 1911, p. 35); Laguna Beach, Orange County (Gardner, Condor, xvii, 1915, p. 99); Schain's Ranch, near San Jacinto Peak (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 271). Elsewhere more widely distributed in winter: Oakland and San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 146); Marin County (J. Mailliard, Condor, ii, 1900, p. 65); Paicines, San Benito County (J. and J. W. Mailliard, Condor, iii, 1901, p. 124); Stanislaus County (J. Mailliard, MS); Pasadena and Los Angeles (J. Grinnell, Bds. Los Angeles Co., 1898, p. 36); Beaumont, Riverside County (Swarth, Condor, xii, 1910, p. 108); Riverside, and Earlimart, Tulare County (Mus. Vert. Zool.); Fresno district (Tyler, Pac. Coast Avif. no. 9, 1913, p. 78).

**344 (549.1) *Passerherbulus caudacutus nelsoni* (Allen)**

NELSON SPARROW

Synonyms—*Ammodramus caudacutus becki*; *Ammodramus nelsoni*; *Ammodramus caudacutus nelsoni*; *Passerherbulus nelsoni nelsoni*.

Status—Known only from its capture twice by R. H. Beck at Milpitas, Santa Clara County: specimen taken May 6, 1891 (Ridgway, Proc. U. S. Nat. Mus., xiv, 1891, p. 483), and specimen taken January 31, 1896 (C. Barlow, Condor, ii, 1900, p. 132). The first, now no. 120310, U. S. Nat. Mus., has been examined by me and found to be quite indistinguishable from eastern specimens of *P. c. nelsoni*.

**345 (552a) *Chondestes grammacus strigatus* Swainson**

WESTERN LARK SPARROW

Synonyms—*Emberiza grammaca*; *Zonotrichia grammaca*; *Chondestes grammaca*; Western Lark Finch.

Status—Common resident of the Upper Sonoran zone, chiefly in the open

interior valleys west of the Sierras. Fairly common in the San Francisco Bay region, but scarce in the humid coastal region to the northward, where recorded casually to Crescent City (Ferry, Condor, x, 1908, p. 42). North through the Sacramento Valley to Baird, and Shasta Valley (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 218; C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 125), west to Scott River, Siskiyou County (Mus. Vert. Zool.); also extreme north-eastern part of the state to Sugar Hill, Modoc County (Mus. Vert. Zool.); and breeds in Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 87). Common in the San Diegan district; irregularly so on the deserts, and as a winter visitant only. Casual on Santa Cruz Island (Linton, Condor, x, 1908, p. 128).

**346 (553)                      *Zonotrichia querula* (Nuttall)**

HARRIS SPARROW

Status—Rare winter visitant; three instances: specimen taken at Haywards, October 27, 1900 (Emerson, Condor, II, 1900, p. 145); specimen taken at Smuggler's Cove, San Clemente Island, October 15, 1907 (Linton, Condor, x, 1908, p. 84). Both specimens have been examined by me; the former is in the Emerson collection (no. 2482), the latter, recently in the Thayer Museum, is now by donation from J. E. Thayer, no. 21272, Mus. Vert. Zool. A third instance is that of a bird seen repeatedly in late winter (December 25, 1912, to February 11, 1913) in Berkeley (A. S. Allen, Condor, xvii, 1915, p. 80; A. S. Allen, MS).

**347 (554)                      *Zonotrichia leucophrys leucophrys* (Forster)**

WHITE-CROWNED SPARROW

Synonyms—*Zonotrichia leucophrys intermedia*, part; *Zonotrichia leucophrys* var. *gambeli*, part; *Zonotrichia intermedia*, part.

Status—Common summer visitant to the Boreal zone along the Sierra Nevada, from Mount Shasta to the Mount Whitney region; also on Warner Mountains, Modoc County (Mus. Vert. Zool.) and White Mountains, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 88). Southernmost breeding station: Sirretta Meadows, 9000 feet, southern Sierras, Tulare County (Mus. Vert. Zool.). Occurs commonly in migration over the southeastern deserts, sparingly through the San Diegan district. Apparently passes in migration entirely east of the Sierran divide north of Los Angeles County; at least there are no records for central or northern California west of the Sierra Nevada.

**348 (554a)                      *Zonotrichia leucophrys gambeli* (Nuttall)**

INTERMEDIATE SPARROW

Synonyms—*Zonotrichia leucophrys intermedia*, part; *Zonotrichia leucophrys nuttalli*, part; *Fringilla leucophrys*; *Zonotrichia gambeli*, part; *Fringilla gambeli*; *Zonotrichia gambeli intermedia*; *Zonotrichia intermedia*, part; Gambel Sparrow, part; Western White-crowned Sparrow; Western White-crowned Finch, part; Nuttall Sparrow, part.

Status—Abundant winter visitant to the valleys and deserts throughout southern California; in smaller numbers north to include the San Francisco Bay region and through the San Joaquin-Sacramento basin, to Red Bluff (Town-

send, Proc. U. S. Nat. Mus., x, 1887, p. 218); also on the Santa Barbara Islands. Occurs elsewhere in the interior during migration; but apparently absent at all seasons from the humid coast belt north of San Francisco Bay.

**349 (554b)                    *Zonotrichia leucophrys nuttalli* Ridgway**

NUTTALL SPARROW

Synonyms—*Zonotrichia gambeli*, part; *Zonotrichia leucophrys*, part; *Zonotrichia leucophrys gambeli*, part; Gambel Sparrow, part; Western White-crowned Finch, part.

Status—Common resident of the narrow northern coastal belt; breeds south from Humboldt Bay through the San Francisco and Monterey bay regions regularly at least to Port Harford (Willett, Condor, xi, 1909, p. 185), sparingly to Santa Barbara (Bowles, Auk, xxviii, 1911, p. 174). Occurs scatteringly in winter beyond these limits, interiorly to McCloud River (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 218), Tracy, San Joaquin County (J. Grinnell, Condor, xiii, 1911, p. 110), and Modesto, Stanislaus County (Mailliard coll.); and southerly to Los Angeles (Swarth, Condor, ii, 1900, p. 39), and Pasadena (Mus. Vert. Zool.). J. Mailliard (MS) notes a regular local migration within Marin County, from the seacoast, where it breeds abundantly, to the interior, as at San Geronimo, where it winters plentifully.

**350 (557)                    *Zonotrichia coronata* (Pallas)**

GOLDEN-CROWNED SPARROW

Synonyms—*Fringilla auropilla*; *Zonotrichia auropilla*; *Emberiza atricapilla*; *Zonotrichia atricapilla*.

Status—Common winter visitant, chiefly west of the Sierran divide and below altitudes of heavy snows, interiorly east to Alta, Placer County (Mus. Vert. Zool.), and Walker Basin, Kern County (Henshaw, Rep. Wheeler Surv., 1876, p. 242), and south through the San Diegan district to San Diego; also to San Clemente, Santa Cruz and Santa Catalina islands. Casually to the Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 133). The frequent occurrence of this sparrow so late in the spring as the first week of May (even to May 9 at Pasadena, and June 2 on the Farallones) has probably been the cause of the several questionable breeding records. The only occurrences east of the Sierran divide are: Eagle Lake, Lassen County (J. and J. W. Mailliard, MS), and Yermo, Mohave Desert, October 14 (Lamb, Condor, xiv, 1912, p. 38).

**351 (558)                    *Zonotrichia albicollis* (Gmelin)**

WHITE-THROATED SPARROW

Status—Rare winter visitant west of the Sierras; 17 specimens have been recorded as taken, as follows: Haywards, November 20, 1889 (Emerson, Zoe, i, 1890, p. 45); San Francisco, December 23, 1888 (W. E. Bryant, Zoe, i, 1890, p. 46); Stockton, April 22, 1892 (Belding, Zoe, iii, 1892, p. 117); Santa Ynez, December 6, 1891 (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 90); Pasadena, November 21, 1894 (Gaylord, Nidologist, iii, 1896, p. 106); Sonoma, Oc-

tober 27, 1896 (C. Barlow, Auk, xiv, 1897, p. 221); Los Angeles, February 25, 1897 (J. Grinnell, Bds. Los Angeles Co., 1898, p. 37); Santa Rosa, October 13 and November 23, 1898, 3 specimens (McGregor, Bull. Cooper Orn. Club, i, 1899, p. 52); Santa Cruz, January 1, 1894 (Breninger, Bull. Cooper Orn. Club, i, 1899, p. 93); Pescadero, December 29, 1900 (Willard, Condor, iii, 1901, p. 48); San Geronimo, January 26, 1901 (J. Mailliard, Condor, iii, 1901, p. 72); Petaluma, March 16, 1903 (Pemberton, Condor, x, 1908, p. 50); San Geronimo, December 11, 1907 [= 1906] (J. Mailliard, Condor, x, 1908, p. 94); San Geronimo, January 22, 1905 (Mailliard coll.); Fair Oaks, San Mateo County, October 6, 1895 (Mailliard coll.); also Berkeley, one individual seen repeatedly, January 28 to February 15 (Wythe, Condor, xvii, 1915, p. 101).

**352 (559a) *Spizella monticola ochracea* Brewster**

WESTERN TREE SPARROW

Synonym—*Spizella monticola*.

Status—Recorded only from northeastern California, where taken by Feilner at Fort Crook, Shasta County (Henshaw, Rep. Wheeler Surv., 1879, p. 296; Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 218); Feilner's specimen, still extant, in U. S. National Museum, examined for me by W. W. Cooke January 31, 1912. Presumably an occasional midwinter visitant to that elevated section of the state subject to severe winters; so conjectured also by J. G. Cooper (Orn. Calif., i, 1870, p. 206).

**353 (560a) *Spizella passerina arizonae* Coues**

WESTERN CHIPPING SPARROW

Synonyms—*Emberiza socialis*; *Spizella socialis*; *Spizella domestica arizonae*; *Spizella socialis arizonae*.

Status—Common summer visitant to the Upper Sonoran zone west of the Sierras, and of high Transition and Boreal almost throughout the state. Winters sparingly in the San Diegan district, along the east side of the San Joaquin Valley, and more commonly on the Mohave and Colorado deserts, particularly in the valley of the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 170); also casually on San Clemente Island (Linton, Condor, xi, 1909, p. 194). The point of conspicuous peculiarity about the range of this bird in the state is its regular breeding in the orchard districts of the valleys, as in parts of the Lower Sonoran zone of Los Angeles County, and also in the coniferous forests of the high mountains from Transition to timberline. It breeds in the humid coast belt, as at Monterey and near Eureka (Clay, MS), on Santa Catalina Island (C. H. Richardson, Condor, x, 1908, p. 68), and on the semi-arid Warner Mountains and in timberline forests in the vicinity of Mount Whitney (Mus. Vert. Zool.). This species thus lives under a remarkable range of both temperature and humidity, and yet throughout the state there is no appreciable variation in characters.



354 (562)

**Spizella breweri** Cassin

BREWER SPARROW

Synonyms—*Emberiza pallida*; *Spizella pallida*; *Spizella pallida* var. *breweri*.

Status—Common summer visitant to arid Transition and high Upper Sonoran chiefly east of the Sierran divide; a characteristic member of the sage-brush (*Artemisia tridentata*) association. Breeds south along the eastern slopes of the Sierras to the Tehachapi region, thence west to Sespe, Ventura County (Peyton, Condor, xi, 1909, p. 207), and south to the San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 273); breeding colonies are reported locally from the southern San Joaquin Valley: Clovis, Fresno County (Tyler, Condor, xii, 1910, p. 193), and west as far as Carrizo Plains, San Luis Obispo County (Swarth, Condor, xiii, 1911, p. 163). Occurs more widely in migration, westward even to Marin County (Belding, Land Bds. Pac. Dist., 1890, p. 157); winters sparingly in Fresno County (Tyler, Condor, xiii, 1911, p. 76), casually to Redwood City, San Mateo County (Littlejohn, Condor, xiv, 1912, p. 41), and regularly in the San Diegan district, but most numerous on the desert along the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 171).

355 (565)

**Spizella atrogularis** (Cabanis)

BLACK-CHINNED SPARROW

Status—Fairly common summer visitant to semi-arid Upper Sonoran chiefly of southern California. Common locally in the chaparral of the mountain sides throughout the San Diegan district, northwest to Mount Pinos (J. Grinnell, Auk, xxii, 1905, p. 387); also in Walker Basin and Walker Pass, Kern County, and on certain of the desert ranges southeast of the Sierras, north to Independence Creek, in Owens Valley, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 92). Recorded casually to Monterey County (H. R. Taylor, Nidologist, ii, 1894, p. 10) and Alamdea County (Cohen, Bull. Cooper Orn. Club, i, 1899, p. 107). One instance of occurrence in midwinter: San Clemente Island (Linton, Condor, xi, 1909, p. 194).

356 (567)

**Junco hyemalis hyemalis** (Linnaeus)

SLATE-COLORED JUNCO

Status—Rare winter visitant. The following are the record stations for the state, the dates of occurrence ranging through the winter from October 23 to April 3. From one to five instances are on record from each locality. Santa Barbara (Jeffries, Auk, vi, 1889, p. 221); Riverside and Haywards (Emerson, Zoe, i, 1890, p. 45; Emerson, Condor, ii, 1900, p. 33); San Diego and Gridley (Belding, Land Bds. Pac. Dist., 1890, p. 159); Panamint Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 92); Battle Creek and Saint Helena (McGregor, Bull. Cooper Orn. Club, i, 1899, p. 52); Berkeley (Slevin, Bull. Cooper Orn. Club, i, 1899, p. 73); Amador County (H. B. Kaeding, Bull. Cooper Orn. Club, i, 1899, p. 81); Los Angeles and Pasadena (J. Grinnell, Bds. Los Angeles Co., 1898, p. 38; Swarth, Bull. Cooper Orn. Club, i, 1899, p. 95); Mount Wilson (Swarth, Condor, iii, 1901, p. 17); Victorville (J. Mailliard and J. Grinnell,

Condor, VII, 1905, p. 76); Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 10); Palo Alto (Pemberton, Condor, x, 1908, p. 92); Clipper Gap (Adams, Placer Co. Inst. Res., 1909, p. 39); Mount Hamilton and Mountain View, Santa Clara County (Mailliard coll.); Yermo, Mohave Desert (Lamb, Condor, XIV, 1912, p. 38).

**357 (567a) Junco oregonus oregonus (Townsend)**

OREGON JUNCO

Synonyms—*Junco oregonus*, part; *Junco hyemalis connectens*; *Junco hyemalis oregonus*, part; *Junco oregonus shufeldti*; *Junco hyemalis shufeldti*; Shufeldt Junco; Oregon Snowbird, part; Coues Junco.

Status—Fairly common winter visitant west of the Sierras and south through the San Francisco Bay region. Recorded casually south to Santa Cruz Island (J. Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45); also on Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 47). I include under the above name all records of the "Shufeldt Junco", as I am unable to distinguish certain Californian specimens which have been given this name from examples of *oregonus*. It is not improbable that most of the Californian examples of "*shufeldti*" are in reality intergrades between *thurberi* and *oregonus*, and not the larger interior race to which the name *shufeldti* had better be restricted. The latter may, however, be expected to occur in winter in northeastern California; unequivocal specimens are lacking.

**358 (567c) Junco oregonus thurberi Anthony**

SIERRA JUNCO

Synonyms—*Struthus oregonus*, part; *Fringilla hudsonia*; *Junco oregonus*, part; *Junco hyemalis oregonus*, part; *Junco hyemalis thurberi*; *Niphoeca oregona*; Oregon Junco, part; Oregon Snowbird, part; Thurber Junco; Western Snowbird.

Status—Abundant summer visitant to the Transition and Boreal zones practically wherever these occur, except, as a rule, in the humid coast belt. Occurs on the inner coast ranges from the Siskiyou Mountains south at least to South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 42) and Mt. Sanhedrin (Mus. Vert. Zool.), and thence locally west to the coast of Sonoma and Mendocino counties, at least from Cazadero to Mendocino City (Mus. Vert. Zool.; J. Mailliard, Condor, x, 1908, p. 133); also at Santa Margarita, San Luis Obispo County (Swarth, Condor, XIII, 1911, p. 163). Recorded as breeding casually at Stanford University (W. K. Fisher, Condor, VI, 1904, p. 108), and as occurring in summer at Berkeley (J. Grinnell, Condor, XVI, 1914, p. 35), these occurrences being remarkable as being so near the habitat of *J. o. pinosus*. Breeds on the Warner Mountains of Modoc County, along the whole length of the Sierras, on all the higher mountains of southern California from Mount Pinos southeast to the Cuyamaca Mountains, and on the desert ranges southeast of the Sierra Nevada. Occurs widely in winter over the lower levels of the state, west to the coast and even on the Santa Barbara islands; also sparingly southeastward across the deserts to the valley of the Colorado River.

**359 (567d) Junco oreganus pinosus Loomis**

## POINT PINOS JUNCO

Synonyms—*Fringilla hyemalis*; *Struthus oregonus*, part; *Junco oregonus*, part; *Junco hyemalis oregonus*, part; *Junco pinosus*; *Junco hyemalis pinosus*.

Status—Common resident of Transition in the Santa Cruz district, breeding from King Mountain, and near San Bruno, San Mateo County (Ray, Osprey, vi, 1902, p. 26; Mus. Vert. Zool.) south to Big Creek, Monterey County (Jenkins, Condor, viii, 1906, p. 128). Occurs sparingly in winter outside its breeding range, extending to the west side of San Francisco Bay, and interiorly to Paicines, San Benito County (J. and J. W. Mailliard, Condor, iii, 1901, p. 125).

**360 (570b) Junco phaeonotus caniceps (Woodhouse)**

## GRAY-HEADED JUNCO

Synonym—*Junco caniceps*.

Status—Rare winter visitant to the San Diegan district: Pasadena, October 26, 1894, one specimen, now in Swarth collection (J. Grinnell, Bds. Los Angeles Co., 1898, p. 38); Julian, San Diego County, November 18 to December 3, 1906, many (A. P. Smith, Condor, ix, 1907, p. 199).

**361 (573a) Amphispiza bilineata deserticola Ridgway**

## DESERT BLACK-THROATED SPARROW

Synonyms—*Poospiza bilineata*; *Amphispiza bilineata*; Desert Sparrow.

Status—Common in summer on portions of the southeastern deserts, both Lower and Upper Sonoran zones, west to the Walker Pass region (Mus. Vert. Zool.), Antelope Valley, northern Los Angeles County (J. Grinnell, MS), east slopes of Santa Rosa and San Jacinto mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 277), and La Puerta, western San Diego County (Mus. Vert. Zool.); north through Owens Valley to Alvord (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 95); also both bases of Warner Mountains, in Modoc County (Mus. Vert. Zool.). Occurs casually on the Pacific slope of the San Diegan district: San Fernando Valley, Los Angeles County, September 12 (Daggett, Condor, vi, 1904, p. 24), Pasadena, April 10 (J. Grinnell, Bds. Los Angeles Co., 1898, p. 39), and Claremont, March 14 (Pierce, Condor, xvi, 1914, p. 144); also in the southern San Joaquin Valley: Poso Mountains, Kern County (Sheldon, Condor, xi, 1909, p. 172).

**362 (574) Amphispiza belli (Cassin)**

## BELL SPARROW

Synonyms—*Emberiza belli*; *Poospiza belli*, part; *Amphispiza belli clemenciae*; Bell Finch.

Status—Common resident in portions of the Upper Sonoran zone west of the desert divides. Adheres closely to the chamisal (*Adenostoma fasciculatum*) association. Occurs north through the southern coast region from San Diego to Santa Clara and Contra Costa counties, and locally in Marin and

Sonoma counties where recorded from vicinity of Nicasio (J. Mailliard, Condor, II, 1900, p. 66), and Sonoma (Cassin, Proc. Acad. Nat. Sci. Phila., 1850, p. 104); also along western rim of Sacramento Valley, at Rumsey and Vacaville (Mus. Vert. Zool.), and along western foothills of Sierra Nevada: Murphys, Calaveras County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 416), Carbondale, Amador County (Mus. Vert. Zool.), and Consumnes River, Eldorado County (Heermann, Pac. R. R. Rep., x, 1859, p. 46). Common resident on San Clemente Island (many records), and has been found on Santa Rosa and San Nicolas islands (Willett, Pac. Coast Avif. no. 7, 1912, p. 82).

**363 (574.1b)      *Amphispiza nevadensis canescens* Grinnell**

CALIFORNIA SAGE SPARROW

Synonyms—*Amphispiza belli nevadensis*, part; *Amphispiza belli canescens*; *Amphispiza belli*, part.

Status—Common in summer in the Upper Sonoran belt of sage-brush (*Artemisia tridentata*) along the mountains encircling the south end of the San Joaquin Valley: Piute Mountains and Mount Pinos (J. Grinnell, Condor, VII, 1905, p. 18); west rim of Owens Valley on Lone Pine Creek and near Owens Lake (Mus. Vert. Zool.); vicinity of Walker Pass (Mus. Vert. Zool.); near Bakersfield and McKittrick, Kern County, and on Carrizo Plains, San Luis Obispo County (Swarth, Condor, XIII, 1911, pp. 161, 163); also south to east slope of San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 97), and north to west side of Tulare Lake (Goldman, Condor, x, 1908, p. 204). Occurs in late summer and winter in Fresno County (Tyler, Condor, XIII, 1911, p. 76), on the western part of the Mohave Desert (Victorville), on the Colorado Desert (Whitewater and Imperial Valley), and in the San Diegan district (San Fernando Valley, San Gabriel Mountains, Riverside). Specimens from the last six specified localities in Mus. Vert. Zool.

**364 (574.1)      *Amphispiza nevadensis nevadensis* (Ridgway)**

NEVADA SAGE SPARROW

Synonyms—*Poospiza belli*, part; *Amphispiza belli nevadensis*, part; *Poospiza belli* var. *nevadensis*.

Status—Common in summer in the *Artemisia tridentata* association (Upper Sonoran and Transition zones) east of the Sierran divide, from east base of Warner Mountains in Modoc County (Mus. Vert. Zool.), through Sierra Valley (Mus. Vert. Zool.) to Mono Lake region (W. K. Fisher, Condor, IV, 1902, p. 11), and desert ranges southeast of Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 96). Common winter visitant generally on the Mohave and Colorado deserts; also recorded from Riverside (F. O. Johnson, Zoe, II, 1891, p. 22; Swarth, Condor, XII, 1910, p. 108), where associated in winter with *A. n. canescens*.

**365 (580)      *Aimophila ruficeps ruficeps* (Cassin)**

RUFIOUS-CROWNED SPARROW

Synonyms—*Ammodramus ruficeps*; *Peucaea ruficeps*; Red-capped Finch.

Status—Common resident locally in Upper Sonoran west of the Sierras, from Nicasio, Marin County (Brewster, Bull. Nutt. Orn. Club, II, 1877, p. 37), Rincon Valley, Sonoma County (Mus. Vert. Zool.), Vacaville, Solano County (Mus. Vert. Zool.), Marysville Buttes, Sutter County (Mus. Vert. Zool.), and Colfax, Placer County (Belding, Land Bds. Pac. Dist., 1890, p. 163), south to San Diego (Mus. Vert. Zool.); also on Santa Catalina and Santa Cruz islands (several records). Easternmost station in central California: south fork of Kern River, seven miles above Onyx, Kern County (Mus. Vert. Zool.). Occurs in numbers locally on sparsely brushed hillsides in the San Francisco Bay region, particularly near Berkeley (J. Grinnell, Condor, XVI, 1914, p. 35), and thence south along the Mount Hamilton Range (C. Barlow, Condor, IV, 1902, p. 107).

**366 (581n)                    *Melospiza melodia caurina* Ridgway**

YAKUTAT SONG SPARROW

Status—Rare winter visitant to northwest coast: Female specimen, no. 34, coll. C. I. Clay, taken at Eureka, February 20, 1910 (J. Grinnell, Condor, XII, 1910, p. 174).

**367 (581e+581f)            *Melospiza melodia rufina* (Bonaparte)**

RUSTY SONG SPARROW

Synonyms—*Melospiza fasciata rufina*; *Melospiza rufina*, part; *Melospiza fasciata guttata*, part; *Melospiza cinerea morphna*; *Melospiza melodia guttata*; *Melospiza melodia morphna*; Sooty Song Sparrow.

Status—Fairly common winter visitant south through the northern humid coast belt to include the San Francisco Bay region; recorded east to Tower House, Shasta County (L. Kellogg, Condor, XIII, 1911, p. 120). There are many winter records of "rusty" song sparrows from the area thus indicated, and the majority of these doubtless belong here, though it is probable that a few of the northern ones refer to *M. m. phaea*, and it is possible that some belong under *M. m. merrilli*. In absence, in most cases, of the specimens upon which these records were based it is of course unwise to try to locate them definitely. All verified records fall within the area specified, except one, from Riverside (Swarth, Condor, XII, 1910, p. 108), this being far to the southward.

**368 (581p, part)            *Melospiza melodia phaea* Fisher**

OREGON SONG SPARROW

Synonyms—*Melospiza fasciata guttata*, part; *Melospiza cinerea phaea*; Rusty Song Sparrow, part.

Status—Winter visitant to extreme north end of humid coast belt—Crescent City, Del Norte County, three specimens in Grinnell coll. (see W. K. Fisher, Condor, IV, 1902, p. 36); also specimen, no. 4459, in Grinnell coll., taken on Pescadero Creek, San Mateo County, November 25, 1900; identified by W. K. Fisher.

**369** (581p, part) **Melospiza melodia cleonensis** McGregor

## MENDOCINO SONG SPARROW

Synonyms—*Melospiza fasciata samuelis*, part; *Melospiza cinerea cleonensis*; Samuels Song Sparrow, part.

Status—Common resident of fresh water marshes within a few miles of the sea in the northern humid coast belt, from Creseent City, Del Norte County (W. K. Fisher, Condor, iv, 1902, p. 134; Ferry, Condor, x, 1908, p. 43) south at least to Westport, Mendocino County (McGregor, Bull. Cooper Orn. Club, i, 1899, p. 87), and Mendocino City (Mus. Vert. Zool.); casual in autumn at Olema, Marin County (no. 10570, Mus. Vert. Zool.).

**370** (581d, part) **Melospiza melodia gouldi** Baird

## MARIN SONG SPARROW

Synonyms—*Melospiza gouldi*; *Melospiza fasciata samuelis*, part; *Melospiza cinerea samuelis*, part; *Melospiza melodia samuelis*, part; *Melospiza cinerea gouldi*; Samuels Song Sparrow, part.

Status—Common resident on fresh water marshes and streams immediately to the north of San Francisco Bay, chiefly in Marin and Sonoma counties. Occurs from the vicinity of Point Reyes (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 267) east at least to Vacaville, Solano County, and Rumsey, Yolo County (Mus. Vert. Zool.); north coastwise to Gualala, Mendocino County (Mus. Vert. Zool.), and interiorly probably to Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 583), Cahto and Ukiah (McGregor, Nidologist, iii, 1896, p. 148). While song sparrows probably occur almost continuously up the coast north of Point Reyes, we have as yet no material showing intergradation of *gouldi* with *cleonensis* (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 267).

**371** (581d, part) **Melospiza melodia samuelis** (Baird)

## SAMUELS SONG SPARROW

Synonyms—*Ammodramus samuelis*; *Melospiza fasciata samuelis*, part; *Melospiza cinerea samuelis*, part.

Status—Abundant resident on salt marshes along the north side of San Francisco Bay, from Larkspur, Marin County, through Sonoma and Napa counties to Vallejo, Solano County; also on south side of San Pablo Bay, at Selby and Pinole, Contra Costa County (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 55).

**372** (5811) **Melospiza melodia pusillula** Ridgway

## SALT MARSH SONG SPARROW

Synonyms—*Melospiza samuelis*, part; *Melospiza pusillula*; *Melospiza fasciata pusillula*; *Melospiza melodia gouldi*, part; *Melospiza cinerea pusillula*; *Melospiza fasciata samuelis*, part; Alameda Song Sparrow; Samuels Song Sparrow, part.

Status—Common resident on the salt marshes bordering the south arm of

San Francisco Bay, from South San Francisco around by the way of Palo Alto, Alviso and Alameda to West Berkeley (specimens examined).

**373** (581d, part) ***Melospiza melodia santaecrucis*** Grinnell

SANTA CRUZ SONG SPARROW

Synonyms—*Melospiza heermanni*, part; *Melospiza fasciata heermanni*, part; *Melospiza melodia heermanni*, part; *Melospiza fasciata samuelis*, part; *Melospiza melodia samuelis*, part; *Melospiza cinerea samuelis*, part; *Melospiza cinerea santaecrucis*; Samuels Song Sparrow, part; California Song Sparrow, part.

Status—Common resident on fresh water marshes and streams throughout the Santa Cruz faunal area, from San Francisco south to Sur River, Monterey County (Grinnell coll.); also east through the Santa Clara Valley to the streams flowing west from the Mount Hamilton range and thence north to Oakland and Berkeley. Also south to Paicines, San Benito County (Mailliard coll.); Poso and Santa Margarita, San Luis Obispo County (Mus. Vert. Zool.). The specimens from the last three localities approach *cooperi* very closely; in fact they might be about as well referred to *cooperi*.

**374** (581m) ***Melospiza melodia cooperi*** Ridgway

SAN DIEGO SONG SPARROW

Synonyms—*Zonotrichia fasciata*; *Melospiza heermanni*, part; *Melospiza fasciata heermanni*, part; *Melospiza melodia heermanni*, part; *Melospiza samuelis*, part; *Melospiza fasciata samuelis*, part; *Melospiza fasciata graminea*, part; *Melospiza melodia graminea*, part; *Melospiza fasciata cooperi*; *Melospiza cinerea cooperi*; Heermann Song Sparrow, part; California Song Sparrow, part.

Status—Common resident of suitable portions of the San Diegan faunal district, from the Mexican line northwest at least to the vicinity of Santa Barbara, and Cuyama Valley, extreme southern San Luis Obispo County (Mus. Vert. Zool.). Closely adherent to the lower parts of the Pacific slope save at two points where it has crossed to the desert side: Occurs down on the east slope of San Jacinto Mountains nearly to the mouth of Palm Canyon (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, pp. 279-280); and on the north side of the San Bernardino Mountains out on the Mohave Desert along the Mohave River at least to Victorville (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 76) and Yermo (Lamb, Condor, xiv, 1912, p. 38). Material is lacking to show *Melospizine* conditions between Santa Barbara and Monterey counties, but it is probable that the distribution is nearly continuous and that *M. m. cooperi* blends with *M. m. santaecrucis*.

**375** (581h) ***Melospiza melodia graminea*** Townsend

SANTA BARBARA SONG SPARROW

Synonyms—*Melospiza heermanni*, part; *Melospiza melodia heermanni*, part; *Melospiza graminea*; *Melospiza fasciata graminea*, part; *Melospiza cinerea graminea*.

Status—Common resident on Santa Barbara Island; less numerous and of

more local occurrence on Santa Cruz Island (see Willett, Pac. Coast Avif. no. 7, 1912, p. 84).

**376 (581i)            *Melospiza melodia clementae* Townsend**

SAN CLEMENTE SONG SPARROW

Synonyms—*Melospiza heermanni*, part; *Melospiza clementae*; *Melospiza fasciata clementae*; *Melospiza cinerea clementae*.

Status—Common resident on San Clemente Island (many records); also on San Miguel and Santa Rosa islands (Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232; Willett, Condor, xii, 1910, p. 172).

**377 (581c, part)      *Melospiza melodia heermanni* Baird**

HEERMANN SONG SPARROW

Synonyms—*Melospiza heermanni*, part; *Melospiza fasciata heermanni*, part; *Zonotrichia guttata*; *Melospiza cinerea heermanni*, part.

Status—Common resident of riparian strips in the Tulare basin, from the San Joaquin River near Fresno (J. Grinnell, Condor, xiii, 1911, p. 110) south and east to Fort Tejon (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 266) and Onyx, on South Fork of Kern River, Kern County (Mus. Vert. Zool.).

**378 (581e, part)      *Melospiza melodia mailliardi* Grinnell**

MODESTO SONG SPARROW

Status—Common resident in the vicinity of the confluence of the Tuolumne and San Joaquin rivers, Stanislaus County (J. Grinnell, Univ. Calif. Publ. Zool., vii, 1911, p. 197), and thence north at least to Tracy Lake, San Joaquin County (Mus. Vert. Zool.).

**379 (581s)            *Melospiza melodia maxillaris* Grinnell**

SUISUN SONG SPARROW

Synonyms—*Melospiza cinerea heermanni*, part; Heermann Song Sparrow, part.

Status—Common resident on the marshes surrounding Suisun Bay, more particularly from the vicinity of the confluence of the Sacramento and San Joaquin rivers west to Benicia and Port Costa where abruptly delimited (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 266).

**380 (581k)            *Melospiza melodia merrilli* Brewster**

MERRILL SONG SPARROW

Synonyms—*Melospiza cinerea merrilli*; *Melospiza fasciata ingersolli*; *Melospiza melodia ingersolli*; *Melospiza fasciata guttata*, part.

Status—Winter visitant to northern California, east of the humid coast belt, south to Saint Helena, Napa County (McGregor, Bull. Cooper Orn. Club, i, 1899, p. 35), and Clipper Gap, Placer County (Grinnell coll.). Casually to Palo Alto, Santa Clara County (Grinnell coll.), and Victorville, on the Mohave Desert (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 76). Thought to breed in



Shasta County (Ridgway, Bds. N. & Mid. Amer., 1, 1901, p. 361). The standing of this form is, perhaps, least satisfactorily defined of that of any of our song sparrows.

**381** (581b, part) **Melospiza melodia fisherella** Oberholser

MODOC SONG SPARROW

Synonyms—*Melospiza fallax*, part; *Melospiza rufina*, part; *Melospiza fasciata*; *Melospiza fasciata montana*; *Melospiza cinerea montana*; *Melospiza fasciata* var. *fallax*; *Melospiza fasciata heermanni*, part; *Melospiza melodia montana*; Mountain Song Sparrow, part.

Status—Commonly breeding in the Modoc district of northeastern California, west to Shasta Valley and Sisson (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 125), and south along the east slope of the Sierras at least to Lake Valley, Eldorado County (Ray, Auk, xx, 1903, p. 189; specimens examined by me); also through Owens Valley to Lone Pine and Ash Creek (A. K. Fisher, N. Amer. Fauna, no. 7, 1893, p. 99; specimens, originally recorded as *heermanni*, re-examined). Common as a winter visitant locally to southeastern California: Colorado Valley, Mohave River, and Salton Sink (Mus. Vert. Zool.).

**382** (581b, part) **Melospiza melodia fallax** (Baird)

ROCKY MOUNTAIN SONG SPARROW

Synonyms—*Melospiza melodia montana*, part; Desert Song Sparrow, part.

Status—Occurs sparingly as a winter visitant to southeastern parts of the state: Clipper Gap, Placer County, and Victorville, San Bernardino County (J. Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 269); and south to El Monte, Los Angeles County (Howell, Condor, xvi, 1914, p. 93). The "Mountain Song Sparrow" of much of the literature concerning California appears to me likely to have referred to one or the other of the two races, *fisherella* and *fallax*. The old name *montana* falls as a synonym of *fallax* (Oberholser, Proc. Biol. Soc. Wash., xxiv, 1911, p. 252). In absence of the original specimens in most cases, it is impossible to make distributional use of the various records.

**383** (581a) **Melospiza melodia saltonis** Grinnell

SALTON SINK SONG SPARROW

Synonyms—*Melospiza fallax*, part; *Melospiza cinerea fallax*; *Melospiza melodia fallax*, part; Desert Song Sparrow, part.

Status—Common resident of the Colorado River bottom from the Nevada line above Needles to the Mexican line below Yuma; also in the Imperial Valley west and north to the southeastern end of Salton Sea, and in the vicinity of Mecca, at the northwestern end of Salton Sea. (See Grinnell, Univ. Calif. Publ. Zool., v, 1909, p. 269.) Closely associated with such riparian plants as arrowweed (*Pluchea*), guatemote (*Baccharis*) and willows.

**384 (583)                    *Melospiza lincolni lincolni* Audubon**

## LINCOLN SPARROW

Synonyms—*Peucaca lincolni*; Lincoln Finch.

Status—Common summer visitant locally to the Canadian zone along the central Sierra Nevada, from Mount Whitney region (Mus. Vert. Zool.) to Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 126); also on the Trinity Mountains (Mus. Vert. Zool.), South Yolla Bolly Mountain (Mus. Vert. Zool.), Warner Mountains, Modoc County (Mus. Vert. Zool.); and, in southern California, on the San Bernardino and San Jacinto mountains (Mus. Vert. Zool.; J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 280). Winters in the San Joaquin Valley (J. Mailliard, Condor, xiv, 1912, p. 74), in the San Diegan district, on Santa Catalina Island, and on suitable parts of the Colorado Desert; widely distributed elsewhere in migration, but most numerous through the interior.

**385 (583a)                    *Melospiza lincolni gracilis* (Kittlitz)**

## FORBUSH SPARROW

Synonyms—*Melospiza lincolni*, part; *Melospiza lincolni striata*.

Status—Fairly common winter visitant locally south through the humid belt to Monterey County; has occurred east to Battle Creek and Saint Helena (McGregor, Condor, ii, 1900, p. 35), and casually south to Fresno (Tyler, Condor, xiii, 1911, p. 76; J. Grinnell, Condor, xiii, 1911, p. 111), Victorville (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 77), Long Beach (Linton, Condor, x, 1908, p. 182), and Witch Creek, Jacumba, and Tiajuana River, San Diego County (Mus. Vert. Zool.).

**386 (585a)                    *Passerella iliaca unalaschcensis* (Gmelin)**

## SHUMAGIN FOX SPARROW

Synonym—*Passerella iliaca townsendi*, part.

Status—Winter visitant; recorded from widely separated points; verified records: San Clemente Island, November 30 (Linton, Condor, xi, 1909, p. 194); Helena, Trinity County (L. Kellogg, Condor, xiii, 1911, p. 120); Pasadena (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 57). Also specimens examined by me from: Mount Wilson, Los Angeles County, three; Berkeley, one; head of Piru Creek, Ventura County, one; Escondido, San Diego County, one. In this and the succeeding subspecies of the Fox Sparrow, where localities of capture are enumerated, I have made use of the series in Mus. Vert. Zool., and in the Mailliard, Grinnell and Swarth collections. In all cases the labels have been marked with my determination, so that this may be verified or emended in the future by anyone else working over the material. It is needless to say that in a varying proportion of specimens uncertainty is experienced in assigning names. This is to be expected in the nature of the problem, as many intermediates undoubtedly occur between forms adjacent to one another in the breeding season.

**387** (585f, part) ***Passerella iliaca insularis*** Ridgway

## KADIAK FOX SPARROW

Synonyms—*Passerella iliaca unalaschensis*, part; *Passerella iliaca townsendi*, part; *Zonotrichia townsendi*; *Passerella townsendi*; *Passerella unalaschensis*.

Status—Fairly common winter visitant south through the interior west of the Sierras, and chiefly east and south of the humid coast belt, to the San Diegan district and Santa Barbara Islands. Santa Catalina Island (Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232); Clovis, Fresno County (Tyler, Pac. Coast Avif. no. 9, 1913, p. 86). Specimens examined by me from: Mount Wilson, Los Angeles County, eighteen; Pasadena and vicinity, ten; Los Angeles, three; Santa Monica Mountains, Los Angeles County, three; Santa Catalina Island, two; Drytown, Amador County, two; Alta, Placer County, one; Blue Canyon, Placer County, four; San Francisco, one; Oakland, four; Berkeley, one; Nicasio, Marin County, one; San Geronimo, Marin County, five. It is probable that some of the records published elsewhere under the name *unalaschensis* really belong here.

**388** (585f, part) ***Passerella iliaca sinuosa*** Grinnell

## VALDEZ FOX SPARROW

Status—Winter visitant; specimens examined by me from: Santa Barbara, two (see Bowles, Auk, xxviii, 1911, p. 175); Mount Wilson, Los Angeles County, six; Pasadena, two; Azusa, one; Riverside, one; Santa Catalina Island, one; Cisco and Blue Canyon, Placer County, twelve; Eagle Lake, Lassen County, two; Upper Lake, Lake County, one; Horse Creek, Siskiyou Mountains, two; Little Van Duzen River, Humboldt County, one; Kuntz, Trinity County, one; Bolinas, Marin County, one; San Geronimo, Marin County, seven; Nicasio, Marin County, one; Pescadero, San Mateo County, one; Oakland, one; Berkeley, four.

**389** (585f, part) ***Passerella iliaca meruloides*** (Vigors)

## YAKUTAT FOX SPARROW

Synonyms—*Fringilla mcruloides*; *Passerella iliaca unalaschensis*, part; *Passerella iliaca townsendi*, part; *Passerella iliaca annectens*.

Status—Common winter visitant south through the humid coast belt to Monterey County. Specimens examined by me from: Point Reyes, Marin County, two; Bolinas, Marin County, three; Nicasio, Marin County, one; San Geronimo, Marin County, thirteen; Fulton, Sonoma County, one; Santa Cruz Mountains, two; Palo Alto, seven; Oakland, one; Berkeley, two; Pescadero, San Mateo County, four; Watsonville, one; Pacific Grove, four; Mount Wilson, Los Angeles County, four; vicinity of Pasadena, three. Also recorded from Tower House, Shasta County (L. Kellogg, Condor, xiii, 1911, p. 120); Placer County (Adams, Placer Co. Inst. Res., 1909, p. 39); Raisin, Fresno County (Tyler, Pac. Coast Avif. no. 9, 1913, p. 86); Witch Creek, San Diego County (Bishop, Condor, vii, 1905, p. 142). Some of the published records of "*unalaschensis*" probably belong here.

**390 (585g) *Passerella iliaca townsendi* (Audubon)**

## TOWNSEND FOX SPARROW

Status—Winter visitant south through the northern humid coast belt: Bodega, and Humboldt Bay (Ridgway, Bds. N. & Mid. Amer., I, 1901, p. 392); Farallon Islands, May 31 (Dawson, Condor, XIII, 1911, p. 182). Specimens examined by me from: Cuddeback, Humboldt County, one; Trinidad, Humboldt County, one; San Geronimo, Marin County, two; Berkeley, one; Oakland, one; Santa Cruz Mountains, one; Pacific Grove, one.

**391 (585e) *Passerella iliaca fuliginosa* Ridgway**

## SOOTY FOX SPARROW

Synonym—*Passerella iliaca unalaschcensis*, part.

Status—Winter visitant south along the northern humid coast belt to San Francisco (Ridgway, Bds. N. & Mid. Amer., I, 1901, p. 394).

**392 (585) *Passerella iliaca iliaca* (Merrem)**

## FOX-COLORED SPARROW

Status—Rare midwinter visitant: specimen from "California" (Coues, Bds. Northwest, 1874, p. 161); intermediate examples from Saticoy, Ventura County, December 14 (Baird, Brewer, and Ridgway, Hist. N. Amer. Birds, III, 1874, p. 516); specimen from Poway, San Diego County, January 3 (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 90); specimen from Oakland, December 2 (W. E. Bryant, Zoe, III, 1893, p. 363); specimen from Big Sur River, Monterey County, December 27 (Pemberton, Condor, X, 1908, p. 50); specimen from Santa Barbara, January 1 (Bowles, Auk, XXVIII, 1911, p. 175); specimen from Burbank, Los Angeles County, November 11 (Howell, Condor, XIV, 1912, p. 41); specimen from Mount Wilson, Los Angeles County, October 31 (no. 3233, Grinnell coll.). Several intermediate examples or possibly hybrids are contained in the available collections. The characters presented in nearly all of these cases point toward interbreeding of *iliaca* with *schistacea*.

**393 (585e, part) *Passerella iliaca altivagans* Riley**

## ALBERTA FOX SPARROW

Status—Rare winter visitant to the northeastern section of the state, casually south to Los Angeles County. Record stations: Fort Crook, near Burgettville, Shasta County, specimen taken April 12, 1860 (Riley, Proc. Biol. Soc. Wash., XXIV, 1911, p. 235); Eagle Lake, Lassen County (specimens in Mailliard coll.); Signal Mt., near Cisco, Placer County, October 9, 1913 (no. 24298, Mus. Vert. Zool.); Pasadena, January 19, 1907 (no. 12021, Mus. Vert. Zool.).

**394 (585e, part) *Passerella iliaca schistacea* Baird**

## SLATE-COLORED FOX SPARROW

Synonyms—*Passerella schistacea*, part; *Passerella townsendi* var. *schistacea*.

Status—Breeds sparingly in the Transition zone on mountains to the east of the Sierran divide: "eastern base of Mount Lassen" (Townsend, Proc. U. S.

Nat. Mus., x, 1887, p. 220); White Mountains, Mono County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 102). Occurs rather widely in fall and winter through interior and southern California, but nowhere commonly: Murphys, Calaveras County (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 418); Cisco and Blue Canyon, Placer County (Mus. Vert. Zool.); Fresno (Tyler, Condor, XIII, 1911, p. 76); Panamint Mountains (A. K. Fisher, *loc. cit.*, p. 102); near Lone Pine, Inyo County (Mus. Vert. Zool.); Cottonwood Lakes, Sierra Nevada, Inyo County (Mus. Vert. Zool.); Fort Tejon, Kern County (Sharpe, Cat. Bds. British Mus., XII, 1888, p. 720); Los Angeles (J. Grinnell, Bds. Los Angeles Co., 1898, p. 40); Millard Canyon, near Pasadena (Swarth, Condor, III, 1901, p. 66); Pasadena (Mus. Vert. Zool.); Poway, San Diego County (Belding, Land Bds. Pac. Dist., 1890, p. 171); Witch Creek, San Diego County (Bishop, Condor, VII, 1905, p. 142); Yermo, Mohave Desert (Lamb, Condor, XIV, 1912, p. 39). In most cases but a single specimen is reported. An extraordinary occurrence is that of an individual, unequivocally referable to this form, on San Jacinto Peak, July 3 (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 281).

395 (585b)

***Passerella iliaca megarhyncha* Baird**

THICK-BILLED FOX SPARROW

Synonyms—*Passerella megarhyncha*, part; *Passerella schistacea*, part; *Passerella schistacea* var. *megarhynchus*; *Passerella iliaca unalaschcensis*, part; Large-beaked Sparrow.

Status—Common in summer in Transition along the Sierra Nevada, from Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 126) south through the Lake Tahoe and Yosemite regions, to as far as Kearsarge Pass, Inyo County (Mus. Vert. Zool.). The main mass of the Sierra Nevada north of the 37th parallel is occupied by this race, but any area of intergradation which may be assumed to exist between this form and *stephensi* is as yet undiscovered. Breeds also east to the Warner Mountains, Modoc County (Mus. Vert. Zool.), though specimens from that region are non-typical, inclining towards *schistacea*. Reported west in northern California to the higher parts of the inner coast ranges: South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 43); Mount Sanehedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 583); Trinity Mountains (Mus. Vert. Zool.). Occurs in February, at least, in Trinity County (L. Kellogg, Condor, XIII, 1911, p. 120). Winters commonly in the San Diegan district, north to Fort Tejon, Kern County, and on Santa Catalina and Santa Cruz islands.

396 (585d)

***Passerella iliaca stephensi* Anthony**

STEPHENS FOX SPARROW

Synonyms—*Passerella iliaca megarhyncha*, part; *Passerella megarhyncha*, part; *Passerella schistacea*, part; *Passerella stephensi*.

Status—Common summer visitant to upper Transition in southern California: Taylor Meadow to Monache Meadow, extreme southern Sierra Nevada in eastern Tulare and Kern counties (Mus. Vert. Zool.); Mount Pinos, Ventura County (J. Grinnell, Auk, XXII, 1905, p. 388); San Gabriel Mountains (J. Grin-

nell, Bds. Los Angeles Co., 1898, p. 40); San Bernardino and San Jacinto mountains (Anthony, Auk, xii, 1895, p. 348). Only three stations of occurrence, either in migration or in winter: Santa Catalina Island, three specimens (Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 233); Little Pine Mountain, Santa Barbara County, September, and San Geronimo, Marin County, frequent during midwinter (J. Mailliard, Condor, xiv, 1912, p. 63; *ibid.*, xv, 1913, p. 93). The latter, as a wintering place for this bird, is most extraordinary, as being some 175 miles north of the northernmost known breeding place.

**397** (588b, part)      **Pipilo maculatus oregonus** Bell

OREGON TOWHEE

Status—Rare visitant; I have seen just one skin from California which I should consider properly referable to *oregonus*: a female, now no. 21273, Mus. Vert. Zool., taken by C. B. Linton on San Clemente Island, December 4, 1908 (original record: Condor, xi, 1909, p. 194); evidently a straggler far from its normal range. This specimen was recently in the Thayer Museum, but has been donated by J. E. Thayer to the Museum of Vertebrate Zoology, as above indicated. Although *oregonus* has been recorded many times from the coast district of California, and even now is given (A. O. U. Check-List, 3rd ed., 1910, p. 280) as breeding south to San Francisco and wintering to southern California, there seems to be sufficient reason for employing the name *falcifer* (which see) for the birds of the coast belt south to Monterey County; and, after examining all available material with this point in view, I find not one good specimen of *oregonus* from within the state, even as a winter visitant, save for the San Clemente specimen as above recorded. This accords with the views of H. S. Swarth (Condor, xv, 1913, pp. 169-172).

**398** (588b, part)      **Pipilo maculatus falcifer** McGregor

SAN FRANCISCO TOWHEE

Synonyms—*Pipilo megalonyx*, part; *Pipilo oregonus*, part; *Pipilo maculatus oregonus*, part; *Pipilo maculatus megalonyx*, part; Oregon Towhee, part; Oregon Ground Robin.

Status—Common resident of the humid coast belt, from Humboldt County south to southern Monterey County, including also the San Francisco Bay region. Specimens verifying the above statement of range are in the Museum of Vertebrate Zoology. The numerous records of the "Oregon Towhee" from the area above indicated very probably all belong under this heading. (See Swarth, Condor, xv, 1913, p. 171.)

**399** (588d, part)      **Pipilo maculatus megalonyx** Baird

SPURRED TOWHEE

Synonyms—*Fringilla arctica*; *Pipilo arcticus*; *Pipilo oregonus*, part; *Pipilo megalonyx*, part; *Pipilo maculatus oregonus*, part; *Pipilo maculatus atratus*; *Pipilo maculatus clementae*, part; Oregon Towhee, part; San Diego Towhee, part; San Clemente Towhee, part; California Ground Robin.

Status—Common resident of Upper Sonoran and, locally, of Lower Transi-

tion throughout the San Diegan district west of the desert proper, and also on Santa Cruz and Santa Rosa islands. This race extends north along the coast into San Luis Obispo County, in the near neighborhood of which intergradation with *falcifer* takes place. The range of *megalonyx* extends east through the Tejon region to the extreme south end of the Sierra Nevada (valley of the South Fork of the Kern River, in Kern County). (For map and general discussion of the subspecies of *Pipilo maculatus* in California, see Swarth, Condor, xv, 1913, pp. 167-175.)

**400** (588d, part)      **Pipilo maculatus falcinellus** Swarth

SACRAMENTO TOWHEE

Synonyms—*Pipilo oregonus*, part; *Pipilo megalonyx*, part; *Pipilo maculatus oregonus*, part; *Pipilo erythrophthalmus oregonus*; *Pipilo maculatus montanus*; *Pipilo maculatus megalonyx*, part; Oregon Towhee, part; San Diego Towhee, part; Spurred Towhee, part.

Status—Common resident of the Upper Sonoran and Transition zones in the Sacramento Valley, parts of the San Joaquin Valley, and on both slopes of the Sierra Nevada. Specimens recorded south through Tulare and Inyo counties, and north to McCloud River, Shasta County, and Callahan and Summerville, Siskiyou County (Swarth, Condor, xv, 1913, pp. 172-173). At the north the range of *falcinellus* reaches nearly to the Oregon line, and lies between the range of the coast form *falcifer* and that of *curtatus* of the Great Basin.

**401** (588a, part)      **Pipilo maculatus curtatus** Grinnell

NEVADA TOWHEE

Synonym—*Pipilo maculatus megalonyx*, part.

Status—Fairly common in summer locally in the Warner Mountains, Modoc County (Mus. Vert. Zool.); also probably on the desert ranges southeast of the Sierra Nevada (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 102). Winters in the valley of the lower Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., VII, 1911, p. 310; Swarth, Condor, xv, 1913, p. 173).

**402** (588c)      **Pipilo maculatus clementae** Grinnell

SAN CLEMENTE TOWHEE

Synonyms—*Pipilo maculatus oregonus*, part; *Pipilo maculatus megalonyx*, part; *Pipilo megalonyx*, part; *Pipilo clementae*, part; Spurred Towhee, part.

Status—Common resident on San Clemente and Santa Catalina islands. (See Swarth, Condor, xv, 1913, pp. 171, 172.)

**403** (591.1, part)      **Pipilo crissalis crissalis** (Vigors)

CALIFORNIA BROWN TOWHEE

Synonyms—*Fringilla crissalis*; *Pipilo fuscus*, part; *Pipilo fuscus crissalis*, part; California Towhee, part; Brown Finch, part.

Status—Common resident of the central humid coast belt, at least from western Sonoma County to southern Monterey County (specimens in Mus. Vert.

Zool.). The range of this race includes the San Francisco Bay region east into Contra Costa County and southeast through Santa Clara County. Intergradation with *P. c. senicula* takes place interiorly and to the southeast. Intergradation with *P. c. carolae* is not shown by the material at hand (Mus. Vert. Zool.).

**404** (591.1, part)      **Pipilo crissalis carolae** McGregor

NORTHERN BROWN TOWHEE

Synonyms—*Pipilo crissalis*, part; *Pipilo fuscus crissalis*, part; *Pipilo fuscus carolae*.

Status—Fairly common resident locally of Upper Sonoran in the interior of northern California: Battle Creek, Shasta County (McGregor, Bull. Cooper Orn. Club, I, 1899, p. 11); Alton Junction and Beswick, Siskiyou County (Ferry, Condor, x, 1908, p. 43); Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 126); Helena, Trinity County, and Tower House, Shasta County (L. Kellogg, Condor, XIII, 1911, p. 120); Cuddeback, Humboldt County (Mus. Vert. Zool.); Sacramento Valley generally, south to Amador County (J. Grinnell, Condor, XIV, 1912, p. 199). Specimens from the latter locality show obvious tendency towards *P. c. senicula*.

**405** (591.1a)      **Pipilo crissalis senicula** Anthony

ANTHONY BROWN TOWHEE

Synonyms—*Pipilo fuscus*, part; *Pipilo crissalis*, part; *Pipilo fuscus crissalis*, part; *Pipilo fuscus senicula*; California Towhee, part; Brown Finch, part.

Status—Common resident of the Upper and Lower Sonoran zones, chiefly west of the desert divides, in the San Diegan district and north through the coast district at least to Paso Robles, San Luis Obispo County (Grinnell coll.); also east and north throughout the San Joaquin valley, and western foothills of the Sierra Nevada from the vicinity of Walker Pass (Mus. Vert. Zool.) northwards, blending with *P. c. carolae* gradually between Madera and Amador counties. Occurs locally a short distance over onto the desert slopes, as at Palm Springs (Gilman, Condor, v, 1903, p. 13), and Morongo Pass (F. Stephens, Condor, v, 1903, p. 103).

**406** (592)      **Pipilo aberti** Baird

ABERT TOWHEE

Status—Common resident of the riparian strip along the Colorado River, from the Nevada line to the Mexican boundary (many records), thence west throughout the Imperial Valley to New River, and northwest beyond Salton Sea to Indio and as far as Palm Springs, Riverside County (Gilman, Condor, v, 1903, p. 12; and other records).

**407** (592.1)      **Oreospiza chlorura** (Audubon)

GREEN-TAILED TOWHEE

Synonyms—*Pipilo chlorurus*; *Embernagra chlorura*; *Embernagra blandingiana*; *Atlapetes chlorurus*; Green Finch; Blanding Finch.



Status—Common summer visitant to semi-arid Transition, breeding chiefly in this zone on desert ranges and along the eastern slope of the Sierras from the Warner Mountains, Modoc County (Mus. Vert. Zool.) south to the San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 283). Breeds locally on the western slope of the Sierras, especially southerly; also west in the mountains of southern California to Mount Pinos (J. Grinnell, Auk, xxii, 1905, p. 389). Occurs in migration widely east of the Sierras, and sparingly west of the Sierras. Recorded west to Mount Shasta (Feilner, Ann. Rep. Smiths. Inst., 1865, p. 426), head of Bear Creek, Trinity County (Mus. Vert. Zool.), South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 43), Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 583), Clear Lake, Lake County (Baird, Brewer, and Ridgway, Hist. N. Amer. Bds., iii, 1874, p. 517), San Francisco (Emerson, Orn. & Ool., ix, 1884, p. 93), and San Jose (Van Denburgh, Proc. Amer. Philos. Soc., xxxviii, 1899, p. 174). Winters rarely in the San Diegan district: Santa Ana River bottom near San Bernardino (Thurber, Auk, xiii, 1896, p. 265); San Diego (J. G. Cooper, Orn. Calif., i, 1870, p. 248).

**408 (595)            *Zamelodia ludoviciana* (Linnaeus)**

ROSE-BREASTED GROSBREAK

Status—Rare sporadic visitant: Several individuals obtained by C. H. Gilbert and party at Myer's, Humboldt County, July 1, 1897 (McLain, Auk, xv, 1898, p. 190); immature male taken by M. F. Gilman at Palm Springs, Riverside County, September 10, 1897 (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 59). Both records verified: basis of the former in collection of Stanford University, the latter in Grinnell collection. Sequoia and General Grant National Parks, Tulare County, "very rare" (Fry, U. S. Dept. Interior, General Information Regarding Sequoia and General Grant National Parks, Season of 1912, p. 14).

**409 (596, part)    *Zamelodia melanocephala capitalis* (Baird)**

PACIFIC BLACK-HEADED GROSBREAK

Synonyms—*Guiraca melanocephala*; *Coccyborus melanocephalus*; *Goniophca melanocephala*; *Hedymeles melanocephalus*; *Habia melanocephala*; *Zamelodia melanocephala*, part; *Zamelodia melanocephala microrhyncha*; *Hedymeles melanocephalus* var. *capitalis*.

Status—Abundant summer visitant almost throughout the state, both east and west of the Sierras. Breeds chiefly in Upper Sonoran and Transition zones, preferably in riparian or deciduous growths of trees; but otherwise the species occurs indiscriminately without regard to relative humidity of climate; for example it is recorded from Humboldt Bay and the Panamint Mountains. The focus of abundance is in the willow bottoms of the interior valleys. Occurs most widely in migration. Reported away from the mainland only from Santa Cruz Island (J. Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 45), and the Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., i, 1888, p. 47).

**410 (596, part)    *Zamelodia melanocephala melanocephala* (Swainson)**

ROCKY MOUNTAIN BLACK-HEADED GROSBREAK

Status—Occurs in migration along the valley of the lower Colorado River.

Specimens in Mus. Vert. Zool. taken in May, 1910, on the California side of the river five miles northeast of Yuna and near Pilot Knob (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 179). It is possible that this name should be applied to grosbeaks breeding in certain mountain ranges east of the Sierran divide.

**411 (597a, part)      *Guiraca caerulea salicarius* Grinnell**

CALIFORNIA BLUE GROSBREAK

Synonyms—*Guiraca caerulea*; *Goniaphea coerulea*; *Cocoborus coeruleus*; *Guiraca caerulea eurhyncha*, part; *Guiraca caerulea lazula*, part; Western Blue Grosbeak, part.

Status—Common summer visitant to the interior valleys west of the Sierran divide, breeding chiefly within the Lower Sonoran zone. Common locally in the San Diegan district, and quite generally throughout the San Joaquin-Sacramento basin from Onyx, Kern County (Mus. Vert. Zool.) north to Chico, Butte County (Belding, Land Bds. Pac. Dist., 1890, p. 177). Occurs also in the valleys of the Inyo region, east probably to Death Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 106); at least specimens in Mus. Vert. Zool. from Independence, Inyo County, belong to the race *salicarius* and not to *lazula* as might have been expected. Very rare in the coast belt north of Santa Barbara; recorded casually from Haywards, Alameda County (J. G. Cooper, Proc. U. S. Nat. Mus., ii, 1880, p. 248); Santa Cruz (J. G. Cooper, *loc. cit.*), and San Lorenzo River, Santa Cruz County (McGregor, Pac. Coast Avif. no. 2, 1901, p. 16). Other sporadic stations are: Pitt River (Newberry, Pac. R. R. Rep., vi, 1857, p. 88); Santa Cruz Island (J. Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 44).

**412 (597a, part)      *Guiraca caerulea lazula* (Lesson)**

ARIZONA BLUE GROSBREAK

Synonyms—*Guiraca caerulea eurhyncha*, part; Western Blue Grosbeak, part.

Status—Common summer visitant to the valley of the lower Colorado River (J. Grinnell, Proc. Biol. Soc. Wash., xxiv, 1911, p. 163), from the Mexican line north at least to Fort Mohave, above Needles (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 180).

**413 (599)                      *Passerina amoena* (Say)**

LAZULI BUNTING

Synonyms—*Spiza amoena*; *Cyanospiza amoena*; Blue Linnet; Lazuli Finch.

Status—Common summer visitant to suitable parts of the Upper Sonoran and Transition zones, practically wherever these occur in the state. Of most wide occurrence during migration, appearing on the deserts, on the Farallones (Dawson, Condor, xiii, 1911, p. 182), and on the Santa Barbara Islands: Santa Catalina (C. H. Richardson, Condor, x, 1908, p. 68); Santa Cruz Island (J. Mailliard, MS). Breeds in the desert ranges east of the Sierra Nevada (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 107) and in the humid coast belt, as well as in intermediate localities, showing a lack of sensitiveness at least to varying

conditions of humidity. As a rule, however, in arid regions it affects the shrubbery around springs or streams. Southernmost breeding station, Cuyamaca Mountains.

**414 (600a) *Passerina versicolor pulchra* Ridgway**

BEAUTIFUL BUNTING

Status—Casual visitant from the south. Occurred in numbers in February, 1914, on the California side of the Colorado River at Blythe, Riverside County; two specimens taken February 8 and 9, now in Daggett collection at the Museum of History, Science and Art, Los Angeles (Daggett, Condor, xvi, 1914, p. 260).

**415 (605) *Calamospiza melanocorys* Stejneger**

LARK BUNTING

Synonyms—*Calamospiza bicolor*; White-shouldered Blackbird; White-winged Blackbird.

Status—Irrregular late winter and spring-visitant to the southern portion of the state; sporadically common. Recorded as follows: Tulare Lake (J. G. Cooper, Bull. Nutt. Orn. Club, II, 1877, p. 92); Santa Barbara (J. Mailliard, Condor, vii, 1905, p. 143); Pilot Knob, Mohave Desert (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 108); Colorado River, near The Needles (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 181); Newhall, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 41); San Fernando Valley, Los Angeles County (Swarth, Condor, iv, 1902, p. 95); Riverside (Swarth, Condor, xii, 1910, p. 108); El Cajon, Campo and Poway, San Diego County (Belding, Land Bds. Pac. Dist., 1890, p. 180); San Diego (Holtherhoff, Auk, I, 1884, p. 293).

**416 (610a) *Piranga rubra cooperi* Ridgway**

COOPER TANAGER

Synonym—*Pyrranga aestiva cooperi*.

Status—Two individuals said to have been seen and one of them taken at Santa Barbara in the "spring" of 1885 (Streator, Orn. & Ool., xi, 1886, p. 52); a female example, which I have identified, taken October 11, 1907, on San Clemente Island (Linton, Condor, x, 1908, p. 85); occurs with probable regularity in summer in the southeastern frontier of the state along the lower Colorado: below Ehrenberg (F. Stephens, Condor, v, 1903, p. 104), at and above The Needles, "common" (Hollister, Auk, xxv, 1908, p. 461), and from eight miles east of Picacho down to vicinity of Pilot Knob (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 182).

**417 (607) *Piranga ludoviciana* (Wilson)**

WESTERN TANAGER

Synonyms—*Pyrranga ludoviciana*; Louisiana Tanager

Status—Common in summer along the entire Sierra Nevada, breeding chiefly in the Transition zone; occurs thus in the higher ranges of southern California

south to and including the San Jacinto Mountains; also in the inner northern coast ranges from the Trinity Mountains (Mus. Vert. Zool.) south to Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 583). Breeds in northern California rarely west to the coast, as in Sonoma County (J. Mailliard, Condor, XIII, 1911, p. 50); also locally well down into Upper Sonoran, as near Santa Barbara (Bowles, Auk, XXVIII, 1911, p. 176). Occurs as a migrant nearly throughout the state; in some years in early May, "waves" of tanagers appear along the coast, as well as in the interior valleys, inflicting severe injury to early fruit crops.

**418 (611a)                      *Progne subis hesperia* Brewster**

WESTERN MARTIN

Synonyms—*Progne subis*; *Progne purpurea*; *Progne chalybea*; Purple Martin.

Status—Common as a migrant and interruptedly distributed as a breeding species along, and west of, the Sierras, south into San Diego County. Many records from both the humid coast belt, and the main Sierra Nevada, with the interlying valleys, and from the Oregon to the Mexican lines. Recorded once from Santa Catalina Island (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1870, pp. 78, 80). But no recorded occurrence from the southeastern deserts. Nests in the Upper Sonoran and Transition zones, in oak and pine regions; also in small numbers in towns just as with the eastern martin, for instance in Pasadena, Los Angeles, Stockton, and Auburn. Appears to be increasing in settled districts (see Willett, Pac. Coast Avif. no. 7, 1912, p. 89).

**419 (612)                      *Petrochelidon lunifrons lunifrons* (Say)**

CLIFF SWALLOW

Synonyms—*Hirundo lunifrons*; *Hirundo fulva*; *Petrochelidon pyrrhonota*.

Status—Abundant as a migrant and breeding species in suitable places nearly throughout the state below the Boreal zone. Large nesting colonies occur along the lower Colorado River, thus in the Lower Sonoran zone (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 183); wide-spread in Upper Sonoran; and fair-sized colonies nest in Transition both along the Sierras and in the humid coast belt. Not recorded, however, from any of the islands. Occurs in winter sparingly in the Imperial Valley (Van Rossem, Condor, XIII, 1911, p. 133).

**420 (613)                      *Hirundo erythrogaster* Boddaert**

BARN SWALLOW

Synonyms—*Chelidon erythrogaster*; *Hirundo horreorum*; *Hirundo rufa*; *Hirundo erythrogastra palmeri*; *Hirundo erythrogastra horreorum*.

Status—Common migrant throughout the state. Breeds in moderate numbers the entire length of the state west of the Sierras, especially on or near the sea-coast; rare as a breeder in southern California: Point Loma, Balboa, and Santa Monica; most numerous in the San Francisco Bay region; recorded also as nesting in Owens Valley (Van Denburgh, Proc. Acad. Nat. Sci. Phila., 1898, p. 216);

at Stockton, Murphys and Big Trees (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 408); Lake Tahoe (Ray, Auk, xx, 1903, p. 190); Eagle Lake (Sheldon, Condor, ix, 1907, p. 190); and in Tulare and Fresno counties (J. Grinnell, Condor, xiii, 1911, p. 111; Tyler, Condor, xiii, 1911, p. 168). Occurs sparingly in winter in the Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 133).

**421 (614) Iridoprocne bicolor (Vieillot)**

TREE SWALLOW

Synonyms—*Tachycineta bicolor*; *Tachycineta bicolor vespertina*; *Iridoprocne bicolor vespertina*; *Chelidon bicolor*; *Hirundo bicolor*; *Hirundo bicolor* var. *vespertina*; *Tachycineta thalassina*, part; White-bellied Swallow.

Status—Common migrant throughout the state; breeds commonly in the San Joaquin and Sacramento valleys, particularly in the vicinity of lakes and streams; also in similar locations in the coastal valleys south to San Onofre, San Diego County (J. S. Dixon, Condor, viii, 1906, p. 97); and in the vicinity of Lake Tahoe (Ray, Auk, xxii, 1905, p. 369) and Eagle Lake (Sheldon, Condor, ix, 1907, p. 190). Passes the winter irregularly and locally in the lowlands of southern and west-central California; northernmost occurrence in midwinter, Point Reyes Station, Marin County (Slevin, Bull. Cooper Orn. Club, I, 1899, p. 29; recorded under the name "*thalassina*").

**422 (615) Tachycineta thalassina lepida Mearns**

NORTHERN VIOLET-GREEN SWALLOW

Synonyms—*Tachycineta thalassina*, part; *Tachycineta lepida*; *Hirundo thalassina*.

Status—Abundant migrant throughout the state, arriving early and tarrying long; passes the summer and breeds commonly in the Transition zone almost everywhere that zone extends, both in the Sierras and Coast Ranges, and from southern San Diego County northwards. Less common in the humid coast belt than on the interior mountains. Not recorded from any of the islands. Occurs in winter in the Imperial Valley (Van Rossem, Condor, xiii, 1911, p. 133).

**423 (616) Riparia riparia (Linnaeus)**

BANK SWALLOW

Synonyms—*Clivicola riparia*; *Cotyle riparia*.

Status—Fairly common migrant throughout the state; remains through the summer and breeds in colonies at a few points: Alvord, Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 112); Placerville (Emerson, Orn. & Ool., xiii, 1888, p. 82); Paicines, San Benito County (J. and J. W. Mailliard, MS); seacoast in vicinity of Long Beach (J. Grinnell, Bds. Los Angeles Co., 1898, p. 42), and Port Los Angeles (Shepardson, Condor, xi, 1909, p. 174); near Whittier, Los Angeles County (Willett, Pac. Coast Avif. no. 7, 1912, p. 91); and vicinity of Santa Cruz (Skirm, Orn. & Ool., ix, 1884, p. 149).

**424 (617) Stelgidopteryx serripennis (Audubon)**

## ROUGH-WINGED SWALLOW

Synonyms—*Cotyle serripennis*; *Stelgidopteryx ruficollis serripennis*.

Status—Fairly common summer visitant locally in the Upper and Lower Sonoran zones, occurring more widely during migration. Recorded north to Humboldt Bay and even Trinidad Head near the coast (W. K. Fisher, Condor, iv, 1902, p. 134); Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 222); Edgewood, Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 127); and Eagle Lake (Sheldon, Condor, ix, 1907, p. 190). Recorded at San Diego as late as November 9 and as early as January 27 (J. G. Cooper, Orn. Calif., i, 1870, p. 61). Common breeding species along the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 186). Usually rare in the humid coast belt, and unknown from the islands.

**425 (618) Bombycilla garrula (Linnaeus)**

## BOHEMIAN WAXWING

Synonym—*Ampelis garrulus*.

Status—Rare and irregular winter visitant; occurred in numbers in February, 1892, in the northeastern section of the state, whence specimens are on record from Susanville and Quincy (W. E. Bryant, Zoe, iv, 1893, p. 226; McGregor, Condor, ii, 1900, p. 34). An adult male was taken at Victorville, on the Mohave Desert, December 31, 1904 (J. Mailliard and J. Grinnell, Condor, viii, 1905, p. 77), and an adult female taken near Daggett, also on the Mohave Desert, December 13, 1910 (Lamb, Condor, xiii, 1911, p. 34). In the late winter, 1911, the species appeared in numbers in various parts of the northern half of the state: Dutch Flat, Placer County (Gifford, Condor, xiii, 1911, p. 109); Galt, Sacramento County (J. Grinnell, Condor, xiii, 1911, p. 111); Tower House, Shasta County, and Helena, Trinity County (L. Kellogg, Condor, xiii, 1911, p. 120); Eureka, Humboldt County (Mus. Vert. Zool.).

**426 (619) Bombycilla cedrorum Vieillot**

## CEDAR WAXWING

Synonyms—*Ampelis cedrorum*; Cedar-bird.

Status—Common but irregular winter visitant into the Upper and Lower Sonoran zones, remaining late in the spring, through May and even into June. Recorded south, west of the Sierras, to Poway, San Diego County (Belding, Land Bds. Pac. Dist., 1890, p. 195); only two records east of the Sierran divides: Lone Pine, Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 113); Victorville, Mohave Desert (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 77). Casual on San Clemente Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 19) and the Farallones (Dawson, Condor, xiii, 1911, p. 182). Summers sparingly and locally in the extreme northwest, evidently as an exclusive inhabitant of the northern humid coast Transition; recorded as nesting at Eureka (J. M. Davis, Condor, xvi, 1914, p. 182). A full-grown juvenile taken August 9, 1908, at Hemet Lake, San Jacinto Mountains (J. Grinnell

and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 288) might be interpreted as indicating a breeding station somewhere in the mountains of southern California.

**427 (620) Phainopepla nitens (Swainson)**

PHAINOPEPLA

Synonyms—*Ptilogonys nitens*; *Uichlopsis nitens*; Black Flycatcher.

Status—Common resident in the desert regions of southeastern California; common summer visitant through the San Diegan district and north locally to Alameda County (Pemberton, Condor, x, 1908, p. 238), Chico and Marysville (Belding, Land Bds. Pac. Dist., 1890, p. 196); also along the western foothills of the Sierras through Eldorado County even to Baird and Fort Crook, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 222), and east of the Sierras into Owens and Panamint valleys (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 113). Breeds chiefly in the Lower Sonoran zone. Although this bird rarely winters in the San Diegan district, it does winter in numbers on the much colder Mohave Desert, and to the northward even to Paicines, San Benito County (J. Mailliard, Condor, vi, 1904, p. 16).

**428 (621, part) Lanius borealis invictus Grinnell**

NORTHWESTERN SHRIKE

Synonyms—*Lanius septentrionalis*; *Lanius borealis*; *Collurio borealis*; Northern Shrike; Butcher-bird, part.

Status—Irregular midwinter visitant into northern California; recorded from: Nicasio (doubtful) and Marysville (Belding, Land Bds. Pac. Dist., 1890, p. 197); Fort Crook, Shasta County, and Shasta Valley, Siskiyou County (Feilner, Ann. Rep. Smiths. Inst., 1865, pp. 422, 425); Quincy, Plumas County (J. Grinnell, Pac. Coast Avif. no. 1, 1900, p. 54); Eagle Lake, Lassen County (J. and J. W. Mailliard, MS).

**429 (622a) Lanius ludovicianus excubitorides Swainson**

WHITE-RUMPED SHRIKE

Synonyms—*Collyrio excubitoroides*, part; *Collurio ludovicianus excubitoroides*, part; *Lanius excubitoroides*, part; *Lanius ludovicianus gambeli*, part.

Status—Common resident of the desert regions of southeastern and northeastern California, that is, the area east of the Sierran divide. Recorded west at the north to Shasta Valley, Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 128), and at the south to Palm Springs, Riverside County (J. Grinnell, Condor, vi, 1904, p. 43). The shrikes of the Colorado Desert differ slightly from those of northeastern California; the status of the various forms has not been satisfactorily worked out. The San Diegan district north at least to the vicinity of Los Angeles, and the southern San Joaquin Valley, furnish specimens variously intermediate between *L. l. excubitorides* and *L. l. gambeli*, probably best referred to under the latter name.

**430 (622b)           Lanius ludovicianus gambeli** Ridgway

## CALIFORNIA SHRIKE

Synonyms—*Collyrio excubitoroides*, part; *Lanius excubitoroides*, part; *Lanius ludovicianus excubitoroides*, part; *Collurio ludovicianus*; *Collurio ludovicianus excubitoroides*, part; *Lanius ludovicianus robustus*, part; *Lanius elegans*, part; White-rumped Shrike, part; Butcher-bird, part.

Status—Abundant resident west of the Sierran divide chiefly in the Upper and Lower Sonoran zones. Recorded north to Humboldt Bay (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 222); casual on the Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., 1, 1888, p. 48). The subspecies is most typical in the humid coast belt, south into Monterey County; the shrikes of the San Diegan district and the San Joaquin-Sacramento Valley are here considered *gambeli*, but in characters incline toward *excubitoroides*.

**431 (622c)           Lanius ludovicianus anthonyi** Mearns

## ISLAND SHRIKE

Synonyms—*Collyrio excubitoroides*, part; *Lanius ludovicianus gambeli*, part; *Lanius ludovicianus excubitoroides*, part; *Lanius anthonyi*; *Lanius ludovicianus mearnsi*; *Lanius mearnsi*; San Clemente Shrike.

Status—Fairly common resident on San Clemente, Santa Catalina and Santa Cruz islands (many records); also reported from Santa Rosa and Anacapa islands (Willett, Pac. Coast Avif. no. 7, 1912, p. 92).

**432 (624)           Vireosylva olivacea** (Linnaeus)

## RED-EYED VIREO

Status—Rare transient; one record. An adult male taken at San Diego, October 6, 1914 (Huey, Condor, xvii, 1915, p. 58).

**433 (625)           Vireosylva flavoviridis** Cassin

## YELLOW-GREEN VIREO

Synonym—*Vireo flavoviridis*.

Status—But one record: a single specimen taken in the Santa Ana River bottom near Riverside, October 1, 1887 (Price, Auk, v, 1888, p. 210); verified by Ridgway (Bds. N. & Mid. Amer., iii, 1904, p. 146) who states that the label gives the date as September 29, instead of as above.

**434 (627a)           Vireosylva gilva swainsoni** (Baird)

## WESTERN WARBLING VIREO

Synonyms—*Vireo gilvus*; *Vireo gilvus swainsoni*; *Vireosylva gilva*; *Vireosylva swainsoni*; *Vireo swainsoni*; Swainson Warbling Greenlet; Warbling Flycatcher.

Status—Common summer visitant in suitable parts of the Upper Sonoran and Transition zones the whole length of the state, chiefly west of the Sierran divides. Recorded breeding as far south as Escondido, San Diego County



(Sharp, Condor, ix, 1907, p. 90). Deciduous trees of riparian growth furnish the typical habitat of this bird. Abundant and more generally distributed during migration.

**435 (629a)            Lanivireo solitarius cassini (Xantus)**

CASSIN VIREO

Synonyms—*Vireo solitarius*; *Vireo cassini*; *Vireosylva solitaria*; *Vireo solitarius cassini*; *Lanivireo solitarius*; *Lanivireo cassini*; Blue-headed Flycatcher.

Status—Common summer visitant to the Transition zone, more particularly along the Sierras; breeds from central San Diego County northward. Rather rare in the San Francisco Bay region and humid coast belt; not recorded nearer the coast north of Marin County, than Cahto, Mendocino County (McGregor, Nidologist, iv, 1896, p. 8). Widely distributed all over the state during migration.

**436 (629b)            Lanivireo solitarius plumbeus (Coues)**

PLUMBEOUS VIREO

Synonym—*Vireo solitarius plumbeus*.

Status—But one record: adult female taken by H. W. Henshaw in the mountains near Fort Tejon, August 1, 1875 (Rep. Wheeler Surv., 1876, p. 236). Recent enquiry shows the specimen in question to be probably still extant in the National Museum, but it could not at the time be found. Mr. Henshaw is confident of its identity as above, as careful examination was made by Mr. Ridgway as well as by himself.

**437 (632)            Vireo huttoni huttoni Cassin**

HUTTON VIREO

Synonyms—*Vireo huttoni obscurus*; *Vireo huttoni oberholseri*; *Vireo huttoni mailliardorum*; *Vireo mailliardorum*; Hutton Greenlet; Hutton Flycatcher.

Status—Common resident in suitable portions of the Upper Sonoran and (in the northern part of the state) Transition zones west of the Sierran divide; recorded from San Diego and the Cuyamaca Mountains northward, but (except for the one instance cited below) only on the Pacific water-shed. Apparently breeds wherever found, in other words, there is scarcely any seasonal shifting of range, much less migration. Some eastward records are: Witch Creek, San Diego County (Bishop, Condor, vii, 1905, p. 142); Victorville, one individual, probably a stray (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 101); Kern River, Kern County (Linton, Condor, x, 1908, p. 181); Big Trees, Calaveras County (Belding, Proc. U. S. Nat. Mus., i, 1879, p. 410). Northernmost record: Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 12). Common on Santa Cruz Island (many records); recorded once from Santa Catalina Island, one specimen (Belding, Land Bds. Pac. Dist., 1890, p. 203).

438 (633a, part)

**Vireo belli pusillus** Coues

## CALIFORNIA LEAST VIREO

Synonyms—*Vireo belli*; *Vireo pusillus*; *Vireo pusillus albatrus*.

Status—Common summer visitant to suitable parts of the Lower Sonoran zone of southern California chiefly west of the desert divides, and north, entirely east of the central coast region, through the San Joaquin and Sacramento valleys to Marysville (Belding, Proc. U. S. Nat. Mus., I, 1879, p. 410). Casual in migration to Redwood City, San Mateo County (Littlejohn, Condor, XIV, 1912, p. 41). Most numerous in the lowlands of the San Diegan district. Recorded also from a few points east of the desert divide: Mohave River (J. G. Cooper, Proc. Calif. Acad. Sci., II, 1861, p. 122; Mus. Vert. Zool.); Death Valley, and Owens Valley north to Bishop Creek (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 116). It is possible that these desert occurrences may really be of birds referable to the race *arizonae*, but material is lacking for determining this point.

439 (633a, part)

**Vireo belli arizonae** Ridgway

## ARIZONA LEAST VIREO

Status—Common summer visitant along the valley of the lower Colorado River, from below Yuma at least to The Needles (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 189).

440 (634)

**Vireo viciniior** Coues

## GRAY VIREO

Synonym—*Vireo viciniior californicus*.

Status—Summer visitant to certain portions of the Upper Sonoran chaparral belt of extreme southern California: Campo (F. Stephens, Bull. Nutt. Orn. Club, III, 1878, p. 42), Cajon Pass (Morcom, Ridgw. Orn. Club, bull. no. 2, 1887, p. 51), Riverside (F. Stephens, Auk, VII, 1890, p. 159), Julian (Belding, Land Bds. Pac. Dist., 1890, p. 204). Also, as ascertained by the field collectors of the Museum of Vertebrate Zoology in the summer of 1908, common and breeding in the *Adenostoma sparsifolium* belt along the west and south sides of the San Jacinto Mountains and thence east along the Santa Rosa Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., X, 1913, pp. 291-297). Recorded in migration from Mecca, Riverside County (Van Rossem, Condor, XIII, 1911, p. 137); also casual (?) northeast to near Bodfish, Kern County, one specimen, June 16, 1911 (no. 20679, Mus. Vert. Zool.).

441 (636)

**Mniotilta varia** (Linnaeus)

## BLACK-AND-WHITE WARBLER

Status—Rare migrant; four instances, each of the capture of a single specimen: Farallon Islands, May 28, 1887 (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 48); Pasadena, October 8, 1895 (Gaylord, Nidologist, III, 1896, p. 106); Carmel River, Monterey County, September 8, 1901 (Emerson, Condor, III, 1901, p. 145); and Watsonville, September 24, 1903 (Hunter, Condor, VI, 1904, p. 25).

**442 (643) Vermivora luciae (Cooper)**

## LUCY WARBLER

Synonyms—*Helminthophaga luciae*; *Helminthophila luciae*.

Status—Common summer visitant to the mesquite belt along the lower Colorado River, at least from the vicinity of Picacho to Chemehuevis Valley (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 191). Recorded also from the Colorado desert: adult male taken by F. Stephens at Silsbee, April 8, 1909 (Mus. Vert. Zool.), and adult female taken at Mecca, March 29, 1911 (Van Rossem, Condor, xiii, 1911, p. 137).

**443 (645a) Vermivora ruficapilla gutturalis (Ridgway)**

## CALAVERAS WARBLER

Synonyms—*Helminthophaga ruficapilla*; *Helminthophila ruficapilla gutturalis*; *Helminthophila rubricapilla gutturalis*; Nashville Warbler.

Status—Common summer visitant to the Transition zone along the west slope of the Sierra Nevada, from Greenhorn Mountains, Kern County (Mus. Vert. Zool.), north to Mount Shasta; also on the Trinity Mountains, in Trinity and Siskiyou counties (Mus. Vert. Zool.), the Warner Mountains, Modoc County (Mus. Vert. Zool.), South Yolla Bolly Mountain (Mus. Vert. Zool.), and on Mount Sanhedrin, near the boundary between northern Lake and Mendocino counties (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 584). A common migrant widely through southern and interior California, but not noted near the coast north of Santa Barbara; westernmost station in central California: Paicines, San Benito County (J. and J. W. Mailliard, Condor, iii, 1901, p. 126).

**444 (646) Vermivora celata celata (Say)**

## ORANGE-CROWNED WARBLER

Synonym—*Helminthophila celata*.

Status—Occurs as a migrant and midwinter visitant in southern California: Los Angeles and Pasadena in September and October (Swarth, Condor, iii, 1901, p. 17; and *idem*, p. 145); Pasadena, April 30, and El Monte, Los Angeles County, September 17 (Grinnell coll.); Riverside, December 25 (Mus. Vert. Zool.); San Luis Obispo, October 10 (J. Mailliard, Condor, vii, 1905, p. 55); Victorville, December (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 101); Colorado River, Needles to Pilot Knob, February 17 to May 14 (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 194); Santa Cruz Island, November 29 (Linton, Condor, x, 1908, p. 128); Piedmont, Alameda County, October 4 (typical specimen, no. 6634, Mus. Vert. Zool., secured by Miss L. Kellogg).

**445 (646a) Vermivora celata lutescens (Ridgway)**

## LUTESCENT WARBLER

Synonyms—*Helminthophaga celata*, part; *Helminthophila celata lutescens*, part; *Vermivora celata*; *Helinaia celata*; *Helminthophaga celata* var. *lutescens*; *Vermivora celata orestera*; Orange-crowned Warbler, part.

Status—Common summer visitant to high Upper Sonoran and Transition zones on the Pacific watershed, from the San Jacinto and San Bernardino mountains northward west of the Sierran divides to the Oregon line. More numerous and widely distributed during migration; although arriving early and remaining late, I have found no instances of occurrence in mid-winter. Breeds to the coast as far south as Santa Barbara (Bowles, Auk, xxviii, 1911, p. 177). In not quite typical form, *V. c. "orestera"* (Oberholser, Auk, xxii, 1905, p. 244), occurs as a summer visitant to the Argus and Panamint mountains, Inyo County, and to the Warner Mountains, Modoc County (Mus. Vert. Zool.). Since it is only in a small proportion of individuals that satisfactory separation is possible to me, there seems to be no violation of subspecific refinement in lumping "*orestera*" with *lutescens*, at least for the present.

**446 (646b) Vermivora celata sordida (Townsend)**

DUSKY WARBLER

Synonyms—*Helminthophaga celata*, part; *Helminthophila celata lutescens*, part; *Helminthophila celata sordida*; *Helminthophila sordida*.

Status—Breeds commonly on Santa Rosa, Santa Cruz, Santa Catalina and San Clemente islands; also on the mainland at Point Loma and Coronado Beach, near San Diego (specimen in Mus. Vert. Zool., collected at the former station in April, 1908, by F. Stephens; see also Willett, Pac. Coast Avif. no. 7, 1912, p. 95). One instance of nesting at Anacapa Island (Willett, *loc. cit.*). Occurs in autumn and winter on Santa Catalina Island (J. Grinnell, Auk, xv, 1898, p. 236), and on the mainland at various points mostly opposite the Santa Barbara group of islands: San Diego, Cuyamaca Mountains, Julian, Santa Ana Mountains, San Pedro, Los Angeles, Highland Park, and Pasadena (specimens from all these localities in Mus. Vert. Zool. and Grinnell coll.); also Santa Barbara, April (J. Mailliard, Condor, vi, 1904, p. 16), Haywards, Alameda County, January 25 and February 8 (Emerson, Condor, vii, 1905, p. 112; specimens, re-examined by me, prove typical *sordida*), and Palo Alto, Santa Clara County, December 29 (specimen, no. 1129, in Law coll., examined by me). The latter two localities are some 275 miles north of the northernmost of the Santa Barbara islands.

**447 (647) Vermivora peregrina (Wilson)**

TENNESSEE WARBLER

Synonym—*Helminthophila peregrina*.

Status—Only one record: a single specimen, now no. 3177 in Grinnell collection, taken near Pasadena, September 27, 1897 (Grinnell, Bds. Los Angeles Co., 1898, p. 45).

**448 (652a) Dendroica aestiva sonorana Brewster**

SONORA YELLOW WARBLER

Status—Abundant summer visitant along the valley of the lower Colorado River, from below Yuma at least to a point twenty miles north of Picacho (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 195). The specimen of "*sonorana*" recorded from Riverside (Brewster, Bull. Mus. Comp. Zool., xli, 1902, p.

180) I have examined and found to be exactly like females of *brewsteri* in first winter plumage.

**449 (652c) *Dendroica aestiva brewsteri* Grinnell**

CALIFORNIA YELLOW WARBLER

Synonyms—*Sylvicola aestiva*; *Dendroica aestiva*; *Dendroica aestiva morcomi*; *Dendroica aestiva sonorana*, part; Western Yellow Warbler; Sonora Yellow Warbler, part.

Status—Common migrant nearly throughout the state; summer visitant to much of the area west and northwest of the Sierran divides, including also the Modoc region south to Lake Tahoe, and the whole San Diegan district. Breeds most numerous in suitable parts of the Upper Sonoran and Transition zones. The preferred association is deciduous riparian growth, so that the matter of relative aridity of the including region counts but little. No record from any of the islands except the Farallones (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 48).

**450 (652b) *Dendroica aestiva rubiginosa* (Pallas)**

ALASKA YELLOW WARBLER

Status—Fairly common late spring and fall migrant: Mountain Spring, San Diego County, May 11 (Oberholser, Auk, XIV, 1897, p. 78), Haywards, Alameda County, September 8 to October 8 (J. Grinnell, Condor, III, 1901, p. 15; Emerson, Condor, VII, 1905, p. 113); Witch Creek, San Diego County, May 3 to 11, and October 12 (Bishop, Condor, VII, 1905, p. 143); Imperial, Imperial County, May 11 (specimen in Mus. Vert. Zool.); Dos Palms Spring, Santa Rosa Mountains, Riverside County, May 26, 27 and 31 (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., X, 1913, p. 298); Pilot Knob, Colorado River, Imperial County, May 9 and 14 (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 200).

**451 (654) *Dendroica caerulescens caerulescens* (Gmelin)**

BLACK-THROATED BLUE WARBLER

Status—But one record: Farallon Islands, November 17, 1886 (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 48). The specimen, a female, is now in the Emerson collection (no. 669A).

**452 (655, part) *Dendroica coronata hooveri* McGregor**

ALASKA MYRTLE WARBLER

Synonyms—*Dendroica coronata*; Hoover Warbler; Yellow-crowned Warbler; Yellow-rumped Warbler.

Status—Fairly common winter visitant and spring migrant in west-central California; recorded south to Santa Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 7), San Clemente Island (Linton, Condor, XI, 1909, p. 194), and Los Angeles (Swarth, Condor, II, 1900, p. 40); east in central California to Murphys, Calaveras County (Ridgway, Bull. Nutt. Orn. Club, III, 1878, p. 65), and Drytown, Amador County (J. and J. W. Mailliard, MS).

**453 (656)            *Dendroica auduboni auduboni* (Townsend)**

## AUDUBON WARBLER

Synonyms—*Sylvicola auduboni*; *Dendroica auduboni nigrifrons*.

Status—Common breeding species in the Transition and Boreal zones, from the Santa Rosa and San Jacinto mountains, Riverside County (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 299), north along the Sierras to Mount Shasta; also on the Warner Mountains (Mus. Vert. Zool.), and south through the northern coast ranges, from the Trinity Mountains (Mus. Vert. Zool.) at least to Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 584). Not recorded as breeding in the humid coast belt, save locally in Sonoma County (J. Mailliard, Condor, x, 1908, p. 133). Abundant winter visitant almost throughout the state below the level of heavy snows; occurs on the islands coastwise and on suitable parts of the deserts, but most plentiful at that season in the interior valley and foothill regions.

**454 (657)            *Dendroica magnolia* (Wilson)**

## MAGNOLIA WARBLER

Synonym—*Dendroica maculosa*.

Status—Rare migrant; four records: adult male taken on Santa Barbara Island, May 15, 1897 (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 7); immature female taken by H. S. Swarth at Los Angeles, October 21, 1897 (J. Grinnell, Bds. Los Angeles Co., 1898, p. 45); and a female taken at Los Angeles, October 5, 1901 (Swarth, Condor, III, 1901, p. 145); these three specimens are on deposit in Mus. Vert. Zool. Two secured (now in Calif. Acad. Sci.) on the Farallon Islands, May 29 and June 2, 1911 (Dawson, Condor, XIII, 1911, p. 182).

**455 (659)            *Dendroica pensylvanica* (Linnaeus)**

## CHESTNUT-SIDED WARBLER

Status—But one record: male taken at Sherwood, Mendocino County, September 21, 1908 (Marsden, Condor, XI, 1909, p. 64). This specimen is now no. 19539 in the L. B. Bishop collection.

**456 (665)            *Dendroica nigrescens* (Townsend)**

## BLACK-THROATED GRAY WARBLER

Synonym—*Sylvicola nigrescens*.

Status—Common summer visitant to suitable portions of lower Transition and high Upper Sonoran zones from the Santa Rosa and San Jacinto mountains, Riverside County, north along the Sierras and desert ranges, more sparingly in the coast ranges, almost throughout the state, except in the humid coast belt. Various localities of summer record are: west through the San Diegan district to the Santa Ynez Mountains, Santa Barbara County (Pemberton, Condor, XII, 1910, p. 18); coast of Sonoma County (J. Mailliard, Condor, x, 1908, p. 133); Hoopa Valley, Humboldt County (W. K. Fisher, Condor, VI, 1904, p. 51); Scott River, Siskiyou County (Mus. Vert. Zool.); Sugar Hill, Modoc County

(Mus. Vert. Zool.); Argus, Panamint, Inyo, Grapevine, and White mountains, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 120); Providence Mountains, eastern San Bernardino County (F. Stephens, Condor, v, 1903, p. 105). Widely distributed during migration; some individuals tarry late in the fall, as November 1 at Berkeley (F. O. Johnson, Zoe, III, 1892, p. 117).

**457 (667) *Dendroica virens* (Gmelin)**

BLACK-THROATED GREEN WARBLER

Status—But one record: female adult taken May 29, 1911, on the Farallon Islands, and another seen June 1 of the same year at the same place (Dawson, Condor, XIII, 1911, p. 168). The specimen secured, and examined by me, is now no. 18080 in the collection of the California Academy of Sciences.

**458 (668) *Dendroica townsendi* (Townsend)**

TOWNSEND WARBLER

Status—Common migrant through southern and interior California. Casual on Farallon (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 49), Santa Barbara (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 7), San Clemente (Linton, Condor, XI, 1909, p. 194), and Santa Cruz (Linton, Condor, X, 1908, p. 128) islands. Also fairly common as a winter visitant in the west-central part of the state from Marin to Monterey counties including the San Francisco Bay region, more sparingly in the San Diegan district. There have been several ascriptions of this bird to the state as a breeding species; but no instance so far, that I know of, bears criticism (see J. Grinnell, Condor, VII, 1905, p. 52).

**459 (669) *Dendroica occidentalis* (Townsend)**

HERMIT WARBLER

Synonym—Western Warbler.

Status—Common summer visitant to the Transition zone along the Sierra Nevada from the Mount Whitney region to Mount Shasta (several records for each extreme). There are in Mus. Vert. Zool. two adult male specimens labelled as taken in the San Bernardino Mountains, June 13, 1889; this would appear to indicate a far southern breeding station, but the point is not proven. Fairly common migrant through southern California both east and west of the Sierras; more rare as a migrant north through west-central California: Paicines, San Benito County (J. and J. W. Mailliard, Condor, III, 1901, p. 126); Berryessa, Santa Clara County (C. Barlow, Condor, II, 1900, p. 133); Berkeley (Belding, Land Bds. Pac. Dist., 1890, p. 215); Petaluma (J. G. Cooper, Proc. U. S. Nat. Mus., II, 1880, p. 246); Cahto, Mendocino County (McGregor, Nidologist, IV, 1896, p. 8). Casual on Santa Barbara Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 7). Occasional individuals winter in west-central California: Pacific Grove, Monterey County, January 22; San Geronimo, Marin County, January 30; both specimens in the Mailliard collection.

**460 (672)                    Dendroica palmarum palmarum (Gmelin)**

## PALM WARBLER

Status—But one record, that of an immature male taken at Pacific Grove, October 9, 1896 (Emerson, Osprey, II, 1898, p. 92). I have examined this specimen, now in the Emerson collection (no. 1089).

**461 (674)                    Seiurus aurocapillus (Linnaeus)**

## OVEN-BIRD

Status—Casual visitant; one definite record: two observed on Farallon Islands, May 29, 1911 (Dawson, Condor, XIII, 1911, p. 167); the one specimen taken, an adult male, is now no. 18078 in the California Academy of Sciences. There is also an old record from "California" (Bonaparte, Comptes Rendus, 1854, p. 385).

**462 (675a)                   Seiurus noveboracensis notabilis Ridgway**

## ALASKA WATER-THRUSH

Synonym—Grinnell Water-thrush.

Status—Rare fall migrant: Santa Cruz, September 25, 1885, two examples secured by A. M. Ingersoll (Belding, Land Bds. Pac. Dist., 1890, p. 216); San Diego, September 11, 1887, one specimen (Keeler, Zool., I, 1891, p. 371); Cactus Flat, San Bernardino Mountains, August 16, 1905, one specimen (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 115); National City, near San Diego, September 29, 1906, one specimen (Linton, Condor, IX, 1907, p. 60).

**463 (676)                    Seiurus motacilla (Vieillot)**

## LOUISIANA WATER-THRUSH

Status—But one record: male secured at Mecca, Colorado Desert, Riverside County, August 17, 1908 (L. H. Miller, Condor, X, 1908, p. 236). This specimen is now no. 1105, Mus. Vert. Zool.

**464 (680)                    Oporornis tolmiei (Townsend)**

## TOLMIE WARBLER

Synonyms—*Geothlypis macgillivrayi*; *Trichas tolmiei*; *Geothlypis philadelphia* var. *macgillivrayi*; *Geothlypis tolmiei*; Macgillivray Warbler.

Status—Common summer visitant to the Transition zone of the northern third of the state; breeds south along the Sierra Nevada at least to Yosemite Valley, and along the desert ranges to the Grapevine Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 122); also south through the coast belt and inner coast ranges to the San Francisco Bay region, sparingly to Los Gatos, Santa Clara County (Van Denburgh, Proc. Amer. Philos. Soc., xxxviii, 1899, p. 176). Apparently rare in the extreme northern humid coast belt. Occurs widely and commonly as a migrant, particularly in southern California, though not reported from the Santa Barbara Islands. One winter occurrence, possibly due to accident: Los Angeles, December 17, 1914 (Wyman, Condor, xvii, 1915, p. 102).



**465** (681a+681c, part) ***Geothlypis trichas occidentalis*** Brewster

## WESTERN YELLOWTHROAT

Synonyms—*Geothlypis trichas arizela*; *Geothlypis trichas*, part; *Trichas delafieldi*; Pacific Yellowthroat, part; Maryland Yellowthroat.

Status—Common migrant generally through southern California and northward both east and west of the Sierras; summer visitant to fresh water marsh areas below Boreal, from west-central California (except the San Francisco Bay region) to the Oregon line and east to the Nevada line. Occurs in the valleys east of the Sierras south at least to the latitude of Death Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 123); specimens from near Lone Pine, Inyo County, are distinctly *occidentalis* (Mus. Vert. Zool.). The systematic status of the breeding Yellowthroats of the San Joaquin-Sacramento basin has not been satisfactorily determined.

**466** (681e, part) ***Geothlypis trichas scirpicola*** Grinnell

## TULE YELLOWTHROAT

Synonyms—*Geothlypis trichas occidentalis*, part; *Geothlypis trichas*, part; *Trichas marylandica*; Western Yellowthroat, part; Pacific Yellowthroat, part.

Status—Common resident on fresh water marshes of the Pacific lowlands of the San Diegan district: San Diego, Orange and Los Angeles counties (many specimens examined), northwest to Santa Barbara (Bowles coll.), and valley of the South Fork of Kern River, Kern County (Mus. Vert. Zool.); also along the lower Colorado River, from Riverside Mountain to the Mexican line (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 202).

**467** (681e) ***Geothlypis trichas sinuosa*** Grinnell

## SALT MARSH YELLOWTHROAT

Synonym—*Geothlypis trichas occidentalis*, part.

Status—Common resident locally on salt and fresh water marshes in the immediate vicinity of San Francisco Bay. Specimens, in Mus. Vert. Zool. and Grinnell coll., examined from: Lake Merced, San Francisco County; Palo Alto, Santa Clara County; Cerrito Creek, Haywards, San Leandro, and Melrose, in Alameda County; Richmond, Contra Costa County; Saint Vincent, Marin County; Second Napa Slough, Sonoma County. Also Olema, Marin County (one specimen, Mailliard coll.). This warbler is thus exceedingly limited in its range. I have seen no examples of intermediate character, which would show intergradation with *G. t. occidentalis* of the nearby regions on the south and east.

**468** (683a) ***Icteria virens longicauda*** Lawrence

## LONG-TAILED CHAT

Synonyms—*Icteria longicauda*; *Icteria viridis*.

Status—Common migrant and summer visitant in suitable localities in the Upper and Lower Sonoran zones, invading locally into lower Transition. Common in summer along the Colorado River from the vicinity of Yuma northward (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 204), in Owens and Death

valleys (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 123), along the South Fork of the Kern River (Mus. Vert. Zool.), in the lowlands of the San Diegan district (many records); thence north, locally common, through the state west of the Sierra Nevada; also near Cedarville, Modoc County (Mus. Vert. Zool.).

**469 (685a)                    *Wilsonia pusilla pileolata* (Pallas)**

ALASKA PILEOLATED WARBLER

Synonym—*Sylvania pusilla pileolata*, part.

Status—Fairly common migrant through southern California: Santa Barbara Island, May 14 to 16 (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 8); Pasadena, April 29, May 1, September 22 (J. Grinnell, Condor, v, 1903, p. 80); Cabezon, May 7, 13 and 15 (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 301); Mecca, April 11 and 15; Imperial, May 10; Colorado River, April 19 to May 12; Dulzura, April 25; San Diego, May 6; and Julian, August 5 (specimens in Mus. Vert. Zool.); Yermo, Mohave Desert, April 16 (Lamb, Condor, xiv, 1912, p. 39). Summer specimens (in Mus. Vert. Zool.) from Sugar Hill, eastern Modoc County, are quite typical of *pileolata* and indicate the breeding of this race within the extreme northeastern corner of the state. The subspecies breeding in the White Mountains, near the Nevada line (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 124) has not been definitely determined, but the chances are that this station relates to *pileolata* also, rather than to *chryseola*.

**470 (685b)                    *Wilsonia pusilla chryseola* Ridgway**

GOLDEN PILEOLATED WARBLER

Synonyms—*Sylvania pusilla pileolata*, part; *Sylvania pusilla*; *Wilsonia pusilla pileolata*; *Myiodioctes pusillus*; *Myiodioctes pusillus pileolatus*; Green Black-cap Warbler; Green Black-cap Flycatcher.

Status—Abundant migrant nearly throughout the state, and common as a summer visitant to suitable localities in the Upper Sonoran and Canadian zones, from Escondido (Sharp, Condor, viii, 1906, p. 75), and the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 116), northward to Mount Shasta (Mus. Vert. Zool.), and from the Sierran divide west to the coast. This bird furnishes an almost unique instance of interrupted distribution zonally; the Transition appears to be taboo, while the zones immediately above and below are locally thickly inhabited.

**471 (687)                    *Setophaga ruticilla* (Linnaeus)**

AMERICAN REDSTART

Status—Casual visitant; four definite records: Haywards, male, June 20, 1881 (Emerson, Zoc, i, 1890, p. 45); Marysville Buttes, male, June 6, 1884 (Belding, Land Bds. Pac. Dist., 1890, p. 222); Pasadena, female, December 27, 1905 (Osburn, Condor, xi, 1909, p. 102); Farallon Islands, male, June 1, 1911 (Dawson, Condor, xiii, 1911, p. 182).

**472 (697)                    *Anthus rubescens* (Tunstall)**

## AMERICAN PIPIT

Synonyms—*Anthus ludovicianus*; *Anthus pensilvanicus*; Titlark.

Status—Common winter visitant to the lowlands throughout the state. Some widely scattered record stations are: Mono Lake (W. K. Fisher, Condor, iv, 1902, p. 11); Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 206); San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 222); San Clemente Island (Linton, Condor, x, 1908, p. 86); Trinidad, Humboldt County, and Beswick, Siskiyou County (Ferry, Condor, x, 1908, p. 43). Most abundant in marshy areas coastwise. Mount Shasta, in Alpine-Arctic zone, "heard" July 17 (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 130).

**473 (701)                    *Cinclus mexicanus unicolor* Bonaparte**

## AMERICAN DIPPER

Synonyms—*Cinclus americanus*; *Cinclus mexicanus*; *Hydrobata mexicana*; Water Ouzel.

Status—Fairly common resident along streams in the Transition and Boreal zones: San Jacinto, San Bernardino and San Gabriel mountains; both slopes of the Sierra Nevada from South Fork of Kern River (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 125; Mus. Vert. Zool.) northward; Warner Mountains, Modoc County (Mus. Vert. Zool.); the coast belt from the Oregon line south to Big Creek, Monterey County (Jenkins, Condor, viii, 1906, p. 129); also, perhaps casually, or at any rate not at the present time, vicinity of Santa Barbara (Streator, Orn. & Ool., xi, 1886, p. 51), and in Ventura County (Evermann, Auk, iii, 1886, p. 185).

**474 (702)                    *Oreoscoptes montanus* (Townsend)**

## SAGE THRASHER

Synonyms—*Mimus montanus*; Mountain Mockingbird.

Status—Common winter visitant to the deserts of southeastern California, and in small numbers to the San Diegan district, northwest to Santa Paula (Evermann, Auk, iii, 1886, p. 185). Summer visitant to the *Artemisia tridentata* belt of northeastern California, and south along the eastern border of the state along the desert ranges through the Panamint Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 126). Also recorded in summer from Bakersfield (Swarth, Condor, xiii, 1911, p. 161), and vicinity of Walker Pass (Mus. Vert. Zool.). A probably isolated breeding colony in Lockwood Valley, 5000 feet altitude, Ventura County, where nests and eggs have been taken (Willett, Pac. Coast Avif. no. 7, 1912, p. 99). This valley is sage-brush high Upper Sonoran.

**475 (703a)                    *Mimus polyglottos leucopterus* (Vigors)**

## WESTERN MOCKINGBIRD

Synonyms—*Mimus polyglottos*; *Mimus caudatus*.

Status—Common resident of the Lower Sonoran zone. Abundant in the

San Diegan district northwest to Santa Barbara, less common throughout the desert regions north, east of the Sierras, to the head of Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 127), and through the San Joaquin and Sacramento valleys to Marysville, Gridley and Chico (Belding, Land Bds. Pac. Dist., 1890, p. 226); also Salinas and San Benito valleys; casually to Watsonville (Hunter, Condor, vi, 1904, p. 25), Haywards (Emerson, Condor, viii, 1906, p. 51), Stanford University (three records), Redwood City (Littlejohn, Zoe, iii, 1893, p. 362), and even San Geronimo, Marin County (J. Mailliard, Auk, xv, 1898, p. 197). Most of these extreme stations are of autumn occurrences and much beyond the known breeding range of the species. Resident also on Santa Catalina, San Clemente and Santa Cruz islands; recorded once from Anacapa Island (Burt, Condor, xiii, 1911, p. 166). (See J. Grinnell, Auk, xxviii, 1911, pp. 293-300, map.)

**476 (704)                    *Dumetella carolinensis* (Linnaeus)**

CATBIRD

Synonyms—*Galeoscoptes carolinensis*; *Mimus carolinensis*.

Status—But one record: Farallon Islands, one specimen, September 4, 1884 (Townsend, Auk, ii, 1885, p. 215); this specimen is now in the U. S. National Museum (no. 100202).

**477 (708)                    *Toxostoma bendirei* (Coues)**

BENDIRE THRASHER

Synonym—*Harporyhynchus bendirei*.

Status—But three records: Agua Caliente [= Palm Springs, Riverside County] (A. O. U. Check-List, 2nd ed., 1895, p. 293; according to W. W. Cooke, in letter, no verification of this record is now to be obtained); Warren's Wells, Mohave Desert, "fairly common in May, 1896" (Heller, Condor, iii, 1901, p. 100). There is a skin (examined by me) in the Zoological Department of Stanford University taken by E. Heller at Whitewater, May 22, 1897. This locality is in the western arm of the Colorado Desert, towards San Geronio Pass, in Riverside County. An immature specimen (now no. 23259, Mus. Vert. Zool.) taken in a suburb of Los Angeles, September 10, 1912 (L. H. Miller, Condor, xv, 1913, p. 41).

**478 (710, part)            *Toxostoma redivivum redivivum* (Gambel)**

CALIFORNIA THRASHER

Synonyms—*Harpes rediviva*; *Harporyhynchus redivivus*, part; Sickie-billed Thrush, part.

Status—Common resident of the Upper Sonoran zone in the Santa Cruz faunal area: San Francisco south through Monterey County; also east around the south arm of San Francisco Bay to Berkeley (Mus. Vert. Zool.).

479 (710, part) **Toxostoma redivivum sonomae** Grinnell\*

## SONOMA THRASHER

Synonyms—*Harporhynchus redivivus*, part; *Toxostoma redivivum*, part; California Thrasher, part.

Status—Fairly common resident of the Upper Sonoran zone around the upper end of the Sacramento Valley and thence west through the inner coast ranges north of San Francisco Bay. Recorded from Marin County (J. Mailliard, Condor, III, 1901, p. 72), and near Vacaville, Solano County (Mus. Vert. Zool.), north to Covelo, Mendocino County (Mus. Vert. Zool.) and Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 225); probably south on east side of Sacramento Valley at least to Placer County, in vicinity of which county intergradation with *pasadenense* probably takes place.

\*New subspecies; type no. 23615, Mus. Vert. Zool.; one mile west of Guerneville, Sonoma County, California; August 30, 1913; collected by J. and H. W. Grinnell; orig. no. 2323. Similar to *T. r. redivivum*, but size slightly greater and back, chest and sides less "warm" in tone of brown; similar to *T. r. pasadenense*, but size, especially of foot, greater, and coloration throughout darker, less ashy.

480 (710, part) **Toxostoma redivivum pasadenense** (Grinnell)

## PASADENA THRASHER

Synonyms—*Harporhynchus redivivus*, part; *Toxostoma redivivum*, part; *Harporhynchus redivivus pasadenensis*; California Thrasher, part; Sickie-billed Thrush, part.

Status—Common resident below the Transition zone throughout the San Diegan district, west to Santa Barbara; north along the coast ranges to Salinas Valley and San Benito County (Mailliard coll.); and through the San Joaquin and Sacramento valleys, chiefly along the western foothills of the Sierras, to vicinity of Amador County, beyond which intergradation with *sonomae* of the Sacramento Valley takes place. Intergradation with *redivivum* probably takes place through Monterey County. Easternmost stations are: Weldon, Kern County (Mus. Vert. Zool.), and Cuyamaca Mountains, San Diego County (J. G. Cooper, Amer. Nat., VIII, 1874, p. 17).

481 (711) **Toxostoma lecontei lecontei** Lawrence

## LECONTE THRASHER

Synonyms—*Harporhynchus lecontei*; *Harporhynchus redivivus lecontei*; Leconte Thrush.

Status—Fairly common resident in suitable portions of the Lower Sonoran zone throughout southeastern California (east of the Pacific watershed), west to Banning (Gilman, Condor, VI, 1904, p. 95) and Antelope Valley (specimen in Grinnell coll.), and north, east of the Sierras, to Benton, at the head of Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 129, map 3); also in the bed of the upper San Joaquin Valley, at Buena Vista Lake (Fisher, *loc. cit.*), Onyx, Kern River Valley (Anthony, Zoe, IV, 1893, p. 223; Mus. Vert. Zool.), Bakersfield and McKittrick, Kern County (Swarth, Condor, XIII, 1911, p. 161).

and northwest of Tulare Lake, between Huron and Arroyo Los Gatos (Goldman, Condor, x, 1908, p. 205). Casual near Julian, San Diego County (Willett, Pac. Coast Avif. no. 7, 1912, p. 100). An apparent hybrid between *T. redivivum* and *T. lecontei* has been reported (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 304).

**482 (712)                      *Toxostoma crissale* Henry**

CRISSAL THRASHER

Synonyms—*Harporynchus crissalis*; Henry Thrush.

Status—Fairly common resident of the mesquite association in the bed of the Colorado Desert, from Palm Springs, Riverside County (Gilman, Condor, iv, 1902, p. 15), southeast through the Salton Sea district to the vicinity of Pilot Knob (Mus. Vert. Zool.), and thence north along the Colorado River at least as far as Needles (Stephens, Condor, v, 1903, p. 105).

**483 (713)                      *Heleodytes brunneicapillus couesi* (Sharpe)**

NORTHERN CACTUS WREN

Synonyms—*Campylorhynchus brunneicapillus*; *Campylorhynchus couesi*; *Helcodytes brunneicapillus*; *Helcodytes brunneicapillus anthonyi*; California Cactus Wren.

Status—Common resident of the Lower Sonoran zone throughout the deserts of southern California, northwest to the Coso Mountains and extreme southern end of Owens Valley (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 131), and through Walker Pass to Weldon (Mus. Vert. Zool.) and vicinity of Kernville (Henshaw, Rep. Wheeler Surv., 1876, p. 231). Also a common resident locally in the San Diegan district from San Diego northwest as far as Santa Paula, Ventura County (Evermann, Auk, III, 1886, p. 185; Willett, Pac. Coast Avif. no. 7, 1912, p. 100).

**484 (713a)                      *Heleodytes brunneicapillus bryanti* Anthony**

BRYANT CACTUS WREN

Status—Sparingly and locally resident in the vicinity of San Diego (Anthony, Auk, xi, 1894, p. 213; also specimens, recently collected, in Mus. Vert. Zool.). The metropolis of this form is to the southward, San Diego apparently being the meeting ground of *H. b. couesi* and *H. b. bryanti*, for the two are known to have nested in the same locality. These two forms thus have no wide area of intergradation, if actual blending occurs at all.

**485 (715)                      *Salpinctes obsoletus obsoletus* (Say)**

ROCK WREN

Synonym—*Troglodytes obsoletus*.

Status—Fairly common in summer, locally, irrespective of zones, almost throughout the state, but chiefly in the more arid eastern and southern portions; occurs more widely and numerously in winter in the Upper and Lower Sonoran zones. Breeds on the Farallon Islands and on most of the Santa Barbara group

(all excepting San Nicolas). This rupestrine bird is within this state notable for its apparent apathy to conditions of both temperature and humidity: both zonal and faunal limits are totally ignored, save that there is migration for the winter out of regions of heavy snow. Rock Wrens are found nesting from the lowest and hence hottest deserts to very nearly the highest above-timber-line peaks of the Sierras, and from the most arid points in the interior to the seacoast. It is clear that associational predilections are of far more import in this species than the other environmental factors named (see Swarth, Condor, xvi, 1914, p. 211).

**486 (715a)            *Salpinctes obsoletus pulverius* Grinnell**

SAN NICOLAS ROCK WREN

Synonyms—*Salpinctes obsoletus*, part; *Salpinctes pulverius*.

Status—Common resident on San Nicolas Island (J. Grinnell, Rep. Bds. Santa Barbara Ids., 1897, p. 10; and other records). The status of the rock wrens occurring both on the mainland and on all of the California islands has been studied by Swarth (Condor, xvi, 1914, p. 211) who concludes that the race *pulverius* is but slightly differentiated and is confined to the island of San Nicolas.

**487 (717a)            *Catherpes mexicanus conspersus* Ridgway**

NEVADA CANYON WREN

Status—Fairly common resident below Transition along the desert ranges east of the Sierras: Panamint, Funeral, Argus and Inyo mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 133); north to Mono Lake (W. K. Fisher, Condor, iv, 1902, p. 11), and south to Providence Mountains (F. Stephens, Condor, v, 1903, p. 105). Also Dry Creek, Warner Mountains, Modoc County, one specimen (Mus. Vert. Zool.). Occurs widely over the southeastern desert regions in winter, as along the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 209).

**488 (717b)            *Catherpes mexicanus punctulatus* Ridgway**

DOTTED CANYON WREN

Synonyms—*Troglodytes mexicanus*; *Catherpes mexicanus*; *Catherpes mexicanus conspersus*, part; *Catherpes mexicanus polioptilus*; White-throated Wren.

Status—Fairly common resident locally in the mountainous parts of southern California from the vicinity of San Diego northwestward to Mount Pinos, and along both slopes of the Sierra Nevada less commonly to Shasta County; also occurs sparingly in the west-central district: Santa Cruz Mountains (Ray, Condor, xi, 1909, p. 21), eastern Alameda County (Jewell, Oologist, xxii, 1905, p. 122), Mount Saint Helena (W. K. Fisher, Condor, ii, 1900, p. 138), etc.; casually to Santa Cruz Island (Linton, Condor, x, 1898, p. 128). Breeds chiefly in the Upper Sonoran zone. The status of the canyon wrens of various localities in southern California from Fort Tejon southward has not been satisfactorily worked out. The name *C. m. polioptilus* has been used for some of them. (See Ridgway, Birds N. and Mid. Amer., iii, 1904, pp. 658, 660.)

**489** (719b, part) **Thryomanes bewicki eremophilus** Oberholser

## DESERT WREN

Synonyms—*Thryomanes bewicki leucogaster*; *Thryothorus bewicki bairdi*, part; Baird Wren; Desert Bewick Wren.

Status—Inhabits the desert ranges southeast of the Sierra Nevada, where fairly common in the Upper Sonoran zone in summer: Panamint, Argus, Coso and White mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 134); desert valleys in winter from Owens Valley, Death Valley and Amargosa Desert (Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 427) to Palm Springs, Riverside County (J. Grinnell, Condor, vi, 1904, p. 44), and Brawley and Alamosa, Imperial County (Van Rossem, Condor, xiii, 1911, p. 133).

**490** (719d, part) **Thryomanes bewicki charienturus** Oberholser

## SAN DIEGO WREN

Synonyms—*Thryothorus bewicki*, part; *Thryothorus bewicki spilurus*, part; *Thryothorus bewicki bairdi*, part; *Troglodytes bewicki*, part; Vigors Wren, part; Western Mocking Wren; Southwest Bewick Wren.

Status—Common resident of the Upper Sonoran chaparral association throughout the San Diegan district, northwest to the vicinity of Santa Barbara and Mount Pinos; occurs in winter on the adjacent portions of the Mohave and Colorado deserts, as at Victorville and Palm Springs (Grinnell coll.).

**491** (719d, part) **Thryomanes bewicki catalinae** Grinnell

## CATALINA ISLAND WREN

Synonyms—*Thryothorus bewicki spilurus*, part; *Thryomanes bewicki charienturus*, part.

Status—Common resident on Santa Catalina Island.

**492** (719.1) **Thryomanes bewicki leucophrys** (Anthony)

## SAN CLEMENTE WREN

Synonyms—*Thryothorus bewicki*, part; *Thryothorus bewicki bairdi*, part; *Thryothorus leucophrys*; *Thryomanes leucophrys*.

Status—Common resident on San Clemente Island.

**493** (—) **Thryomanes bewicki nesophilus** Oberholser

## SANTA CRUZ ISLAND WREN

Synonyms—*Thryothorus bewicki bairdi*, part; *Thryothorus bewicki spilurus*, part; *Thryomanes bewicki spilurus*, part; *Thryomanes nesophilus*.

Status—Common resident on Santa Cruz Island; occurs also on Santa Rosa Island (Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 442).

**494** (719d, part) **Thryomanes bewicki drymoecus** Oberholser

## SAN JOAQUIN WREN

Synonyms—*Troglodytes bewicki spilurus*; *Thryothorus spilurus*, part;



*Thryothorus bewicki spilurus*, part; *Thryothorus bewicki*, part; *Thryomanes bewicki spilurus*, part; *Thryomanes spilurus*; *Troglodytes bewicki*, part; Vigors Wren, part; Bewick Wren, part.

Status—Common resident of Upper Sonoran throughout the San Joaquin-Sacramento basin, from the Tejon Mountains and vicinity of Walker Pass (Mus. Vert. Zool.) north to Baird, Shasta County (Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 437); thence west over the northern inner coast ranges to Helena, Trinity County (L. Kellogg, Condor, xiii, 1911, p. 121), and east to Sugar Hill and Cedarville, Modoc County (Mus. Vert. Zool.); also west from the southern San Joaquin Valley through the Coast Ranges: southern Monterey County (Jenkins, Condor, viii, 1906, p. 129) and San Simeon (Oberholser, *loc. cit.*).

495 (719a, part) **Thryomanes bewicki spilurus** (Vigors)

VIGORS WREN

Synonyms—*Troglodytes spilurus*; *Troglodytes bewicki*, part; *Thryothorus bewicki*, part; *Thryothorus bewicki spilurus*, part; Bewick Wren, part.

Status—Common resident of the Upper Sonoran chaparral association in the humid coast belt, from northern Monterey County north up to the Golden Gate; east around the south arm of San Francisco Bay at least to Berkeley (Mus. Vert. Zool.).

496 (719a, part) **Thryomanes bewicki marinensis** Grinnell

NICASIO WREN

Synonyms—*Thryothorus bewicki*, part; *Thryothorus bewicki spilurus*, part; *Thryomanes bewicki spilurus*, part; Vigors Wren, part.

Status—Fairly common resident in the humid coast belt, from San Francisco Bay and Golden Gate north through Marin and Sonoma counties at least to Sherwood, Mendocino County (Mus. Vert. Zool.).

497 (721a) **Troglodytes aëdon parkmani** Audubon

WESTERN HOUSE WREN

Synonyms—*Troglodytes parkmani*; *Troglodytes aëdon*; *Troglodytes domesticus parkmani*; *Troglodytes americanus*; *Troglodytes aëdon aztecus*; *Troglodytes sylvestris*; Parkman Wren; Parkman House Wren.

Status—Common summer visitant to Upper Sonoran and Transition nearly throughout the state both east and west of the Sierras; invades the higher mountains extensively during late summer; winters sparingly in the valleys of the San Diegan district, casually north to Sur, Monterey County (Pemberton, Condor, x, 1908, p. 50), Snelling, Merced County (Mus. Vert. Zool.), and commonly along the lower Colorado River. Not reported from any of the islands.

498 (722a) **Nannus hiemalis pacificus** (Baird)

WESTERN WINTER WREN

Synonyms—*Troglodytes hiemalis*; *Anorthura hiemalis pacifica*; *Anorthura*

*troglodytes pacifica*; *Troglodytes parvulus* var. *pacificus*; *Olbiorchilus hiemalis pacificus*; *Troglodytes parvulus* var. *hyemalis*; *Anorthura pacifica*; *Troglodytes hiemalis pacificus*.

Status—Common resident in the Transition and Boreal zones of the humid coast belt; south to Big Creek, Monterey County (Jenkins, Condor, viii, 1906, p. 129); also in summer, though more sparingly, in the northern high Sierra Nevada, south as far as Yosemite Valley (Torrey, Condor, xii, 1910, p. 79; J. Grinnell, Sierra Club Bull., viii, 1911, p. 122); occurs more widely in mid-winter through northern and central California west of the Sierran divide, south in very small numbers as far as Los Angeles County: Los Angeles, San Fernando Valley, Mount Wilson, San Dimas Canyon (Lawrence, Auk, xi, 1894, p. 181; J. Grinnell, Bds. Los Angeles Co., 1898, p. 48; Swarth, Condor, ii, 1900, p. 40; Willett, Pac. Coast Avif. no. 7, 1912, p. 102). One record from Santa Cruz Island (Willett, *loc. cit.*).

**499 (725a)      *Telmatodytes palustris paludicola* (Baird)**

TULE WREN

Synonyms—*Cistothorus palustris*, part; *Cistothorus paludicola*; *Cistothorus palustris paludicola*, part; *Troglodytes palustris*; California Marsh Wren; Long-billed Marsh Wren.

Status—Common resident locally in marshy tracts west of the Sierran divide; breeds south to Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 91); in winter more widely distributed over the lowlands, casually across onto the desert, as at Yermo, San Bernardino County (Lamb, Condor, xiv, 1912, p. 40).

**500 (725c)      *Telmatodytes palustris plesius* (Oberholser)**

WESTERN MARSH WREN

Synonyms—*Cistothorus palustris paludicola*, part; *Cistothorus palustris plesius*; *Cistothorus palustris*, part.

Status—Common in summer locally east of the Sierran divide; breeds at Goose Lake, Eagle Lake, etc.; occurs in winter in suitable localities on the southeastern deserts: Colorado River bottom (J. Grinnell, Univ. Calif. Publ. Zool., xii, 1914, p. 211), Mohave River (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 101), Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 40), Salton Sea (Mus. Vert. Zool.); also west of the southern Sierras in the coast district of Los Angeles County (J. Grinnell, Condor, v, 1903, p. 134).

**501 (726d)      *Certhia familiaris zelotes* Osgood**

SIERRA CREEPER

Synonyms—*Certhia familiaris americana*, part; *Certhia americana zelotes*; *Certhia americana*; *Certhia mexicana*; *Certhia familiaris*; *Certhia familiaris fusca*; *Certhia familiaris occidentalis*, part; *Certhia familiaris montana*; *Certhia americana montana*; California Creeper, part; Rocky Mountain Creeper; Western Creeper.

Status—Common resident of the Transition and Canadian zones along almost the entire length of the Sierras; northwest to Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 12), and thence south along the inner northern coast ranges as far as the St. Helena Range, in Sonoma County; northeast to the Warner Mountains, Modoc County (Mus. Vert. Zool.); south to the vicinity of Mount Pinos, Ventura County (J. Grinnell, Auk, xxii, 1905, p. 391); thence east and south along the higher ranges as far as the Cuyamaca Mountains, San Diego County (Mus. Vert. Zool.). Occurs in winter at lower elevations adjacent, and, sporadically, in the interior valleys of central California west at least to Berkeley, in the coastal portion of the San Diegan district, and along the Mohave River out onto the Mohave Desert.

**502 (726e) *Certhia familiaris occidentalis* Ridgway**

TAWNY CREEPER

Synonyms—*Certhia familiaris americana*, part; *Certhia americana occidentalis*; California Creeper, part.

Status—Fairly common resident in the Transition and Canadian zones of the narrow humid coast belt, south through the Santa Cruz district as far as Big Creek, Monterey County (Jenkins, Condor, viii, 1906, p. 129). In winter occurs sparingly in adjacent localities in the San Francisco Bay region, but as far as known not at any season south of Monterey County.

**503 (727a) *Sitta carolinensis aculeata* Cassin**

SLENDER-BILLED NUTHATCH

Synonyms—*Sitta carolinensis*; *Sitta aculeata*; Western Nuthatch.

Status—Common resident of the Transition and Boreal zones almost throughout the state outside of the narrow northern humid coast belt. Breeds also locally in the oak belt of high Upper Sonoran, as at Escondido, San Diego County (Sharp, Condor, ix, 1907, p. 91), in Santa Clara County (C. Barlow, Condor, ii, 1900, p. 133), and in Sonoma County (J. and J. W. Mailliard, MS). Southernmost breeding station east of the Sierras is Panamint Mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 136). Occurs in winter sparingly elsewhere in wooded valleys, and even out on the desert, as at Barstow (J. Grinnell, Condor, iii, 1901, p. 70).

**504 (728) *Sitta canadensis* Linnaeus**

RED-BREASTED NUTHATCH

Synonyms—Canada Nuthatch; Red-bellied Nuthatch.

Status—Summer visitant in small numbers to the high Sierras, breeding in the Canadian zone; occurs thus also at the north, east to Warner Mountains, Modoc County (Mus. Vert. Zool.), west to the Trinity Mountains, Siskiyou and Trinity counties (Mus. Vert. Zool.), and thence south along the inner northern coast ranges at least as far as South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 43), and in the coast belt to Cazadero, Sonoma County (Mus. Vert. Zool.). Recorded south in summer as far as the San Jacinto Mountains (J.

Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 309); also on Santa Cruz Island (Howell and Van Rossem, Condor, xiii, 1911, p. 210). Occurs in winter more or less commonly, but very irregularly, in suitable localities almost throughout the state west of the deserts; also at Fort Yuma (Baird, Rep. Ives' Expl. Colo. R., 1861, Zool., p. 6), and Vallecito Creek, extreme eastern San Diego County (Mus. Vert. Zool.); has strayed even to the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., I, 1888, p. 50).

505 (730)

***Sitta pygmaea pygmaea* Vigors**

## PIGMY NUTHATCH

Synonym—California Nuthatch.

Status—Common resident locally of the Transition zone north of 35° latitude; most numerous along the Sierra Nevada, and in the vicinity of Monterey. Occurs in winter but very rarely outside of its breeding range; an extreme instance: near Clovis, Fresno County, November 1 (Tyler, Condor, xi, 1909, p. 81). Not recorded at any season southeast of the main Sierra Nevada, nor in the northern coast region north of Mendocino City, Mendocino County (Mus. Vert. Zool.), or west of Sisson and Shasta Valley, in Siskiyou County (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 131). Common on the Warner Mountains, Modoc County (Mus. Vert. Zool.). Southernmost station for this form: Piute Mountains, Kern County (C. H. Richardson, Condor, vi, 1904, p. 136).

506 (730a)

***Sitta pygmaea leuconucha* Anthony**

## WHITE-NAPED NUTHATCH

Synonyms—*Sitta pygmaea*, part; Pigmy Nuthatch, part.

Status—Common resident of Transition on the higher mountains of southern California from Mount Pinos, Ventura County (Grinnell coll.) southeast through the San Gabriel, San Bernardino, San Jacinto and Santa Rosa (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 310) mountains to the Cuyamaca Mountains in San Diego County (J. G. Cooper, Amer. Nat., viii, 1874, p. 17; Mus. Vert. Zool.). (See Ridgway, Bds. N. and Mid. Amer., iii, 1904, p. 459.)

507 (733, part)

***Baeolophus inornatus inornatus* (Gambel)**

## PLAIN TITMOUSE

Synonyms—*Parus inornatus*, part; *Baeolophus inornatus restrictus*; *Lophophanes inornatus*, part; Plain-crested Titmouse, part.

Status—Common resident of the Upper Sonoran oak and digger pine regions west of the Sierran divide and north of Ventura County. Recorded north to Ukiah and Covelo, Mendocino County (Belding, Land Bds. Pac. Dist., 1890, p. 240; Mus. Vert. Zool.), Tower House, Shasta County (L. Kellogg, Condor, xiii, 1911, p. 121), and even Scott River, Siskiyou County (Mus. Vert. Zool.). Easternmost station: Walker Pass, Kern County (Mus. Vert. Zool.); specimens from there, however, are non-typical.

**508 (733, part) Baeolophus inornatus murinus** Ridgway

## SAN DIEGO TITMOUSE

Synonyms—*Parus inornatus*, part; *Lophophanes inornatus*, part; Plain Titmouse, part; Plain-crested Titmouse, part.

Status—Common resident of the Upper Sonoran oak regions throughout the San Diegan district, from Santa Barbara and Ventura counties (where intermediate towards *B. i. inornatus*) southeastward to the Mexican line. Not reported from any of the islands, nor from east of the desert divides.

**509 (733a) Baeolophus inornatus griseus** (Ridgway)

## GRAY TITMOUSE

Synonyms—*Parus inornatus griseus*; *Parus inornatus ridgwayi*.

Status—Sparingly resident in the Upper Sonoran zone on desert ranges southeast of the Sierra Nevada: Panamint, Grapevine, Inyo and White mountains, and eastern slope of Sierra Nevada at head of Owens River (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 138); Providence Mountains (F. Stephens, Condor, v, 1903, p. 105); New York Mountain (Hollister, Auk, xxv, 1908, p. 461).

**510 (735b) Penthestes atricapillus occidentalis** (Baird)

## OREGON CHICKADEE

Synonyms—*Parus occidentalis*, part (?); *Parus atricapillus* (?); *Parus atricapillus occidentalis*, part (?).

Status—First definitely established as a member of the avifauna of the state by the taking by Miss A. M. Alexander and Miss L. Kellogg of four specimens (nos. 19403-19406, Mus. Vert. Zool.) on Scott River, Siskiyou County, six miles northwest of Callahan, June 10 and 13, 1911. Since two of these specimens are but partly grown juvenals there can be no question but that this is a breeding station for the species. This chickadee has been attributed to California several times previously, in all cases most likely through misidentification of *P. gambeli*, as shown by Belding (Condor, vii, 1905, p. 82).

**511 (738) Penthestes gambeli gambeli** (Ridgway)

## MOUNTAIN CHICKADEE

Synonyms—*Parus montanus*, part; *Parus gambeli*, part; *Parus atricapillus occidentalis*, part; *Parus occidentalis*, part; Mountain Titmouse.

Status—Common resident of Transition and Canadian zones throughout the Sierra Nevada from the Piute Mountains, Kern County, northward; also on desert ranges southeast of the Sierras: White, Inyo, Argus, Panamint and Grapevine mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 139); north to Warner Mountains, Modoc County (Mus. Vert. Zool.); northwest to Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 13); west to Trinity Mountains (Mus. Vert. Zool.), and thence south to Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 43) and Mount Sanhedrin, Mendocino County (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 585); but *not* in any part

of the humid coast belt. Occurs sparingly at lower levels in adjacent valleys in winter, south to Fort Tejon, Kern County (J. Grinnell, Condor, x, 1908, p. 30).

**512 (738a) Penthestes gambeli baileyae** (Grinnell)

BAILEY CHICKADEE

Synonyms—*Parus montanus*, part; *Parus gambeli*, part; *Parus gambeli baileyae*; Mountain Chickadee, part.

Status—Common resident of Transition and Canadian zones from Mount Pinos, Ventura County (J. Grinnell, Auk, xxii, 1905, p. 391) southeastward through the San Gabriel, San Bernardino, San Jacinto and Santa Rosa mountains to the Cuyamaca Mountains (J. G. Cooper, Amer. Nat., viii, 1874, p. 17; Mus. Vert. Zool.); also on the Santa Ana Mountains, Orange County (Mus. Vert. Zool.), and at head of Big Creek, Santa Lucia Mountains, Monterey County (Jenkins, Condor, viii, 1906, p. 129; specimens, now in Mailliard coll., determined by me). Occurs in adjacent valleys in winter in small numbers, as at Pasadena and Pomona; also along the Mohave River at Victorville (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 102).

**513 (741) Penthestes rufescens rufescens** (Townsend)

CHESTNUT-SIDED CHICKADEE

Synonyms—*Parus rufescens*, part; *Parus rufescens neglectus*, part; Chestnut-backed Chickadee.

Status—Common resident of Transition and Canadian zones in the northern humid coast belt; west to the Siskiyou Mountains (M. P. Anderson and J. Grinnell, Proc. Acad. Nat. Sci. Phila., 1903, p. 13), Helena, Trinity County (L. Kellogg, Condor, xiii, 1911, p. 121), and casually to west base of Mount Shasta (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 229); south to coast of Sonoma County in vicinity of Freestone (Mus. Vert. Zool.), and interiorly to Mount Saint Helena (W. K. Fisher, Condor, ii, 1900, p. 138).

**514 (741a) Penthestes rufescens neglectus** (Ridgway)

MARIN CHICKADEE

Synonyms—*Parus rufescens*, part; *Parus rufescens neglectus*, part; California Chickadee, part.

Status—Common resident of humid Transition in Marin County, from Nicasio west to Point Reyes (Mus. Vert. Zool.). The range of this form is stated by J. Mailliard (Condor, x, 1908, p. 182) to be separated from the range of *P. r. rufescens*, at least along the coast, by a well-defined interval of associationally unfavorable territory.

**515 (741b) Penthestes rufescens barlowi** (Grinnell)

SANTA CRUZ CHICKADEE

Synonyms—*Parus rufescens*, part; *Parus rufescens neglectus*, part; *Parus rufescens barlowi*; *Parus barlowi*; *Penthestes barlowi*; California Chickadee, part; Barlow Chickadee; Chestnut-backed Titmouse.

Status—Common resident of Transition in the coast district south of Golden Gate and San Francisco Bay, from Presidio (Carriger, MS) to Little Sur River, Monterey County (Jenkins, Condor, VIII, 1906, p. 129). Breeds east to the west shore of the south arm of San Francisco Bay, as near mouth of San Francisquito Creek near Palo Alto (J. Grinnell, MS). Has occurred casually east in autumn to Berkeley (J. Grinnell, Condor, XVI, 1914, p. 39), Haywards, Alameda County (Emerson, Condor, II, 1900, p. 19), and Gilroy, Santa Clara County (J. Grinnell, Auk, XXI, 1904, p. 380).

**516 (743)      *Psaltriparus minimus minimus* (Townsend)**

COAST BUSH-TIT

Synonyms—*Psaltriparus minimus californicus*, part; *Parus minimus*; *Acredula minima*; *Psaltria minima*; *Psaltria minimus californicus*; Least Titmouse; California Bush-tit, part.

Status—Common resident of Upper Sonoran and low Transition zones in the coastal belt the whole length of the state: throughout the San Francisco Bay region, east to Mount Diablo, and to the north through the humid coast belt and ranges west of the Sacramento Valley to the Oregon line; south through the Santa Cruz district, and throughout the entire San Diegan district, to the Mexican line. Also on Santa Cruz Island (J. Mailliard, Bull. Cooper Orn. Club, 1, 1899, p. 45). The easternmost records of this subspecies at the north are Callahan, Siskiyou County, and Tower House, Shasta County; the easternmost in the San Diegan district, Fort Tejon, Kern County, Victorville, San Bernardino County (perhaps casual), and Cuyamaca Mountains, San Diego County. (See Swarth, Auk, XXXI, 1914, p. 510, pl. XL.)

**517 (743a)      *Psaltriparus minimus californicus* Ridgway**

CALIFORNIA BUSH-TIT

Synonym—*Psaltriparus minimus*, part.

Status—Common resident of the San Joaquin-Sacramento basin including the western foothills of the Sierra Nevada, in Upper Sonoran and lower Transition zones, from the vicinity of Walker Pass, Kern County (Mus. Vert. Zool.) northward to Shasta Valley (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 132); also northeastward in the Modoc region to the head of the Pitt River basin on the west side of the Warner Mountains: Parker Creek and Sugar Hill, Modoc County (Mus. Vert. Zool.). Occurs also on the eastern slope of the southern Sierra Nevada in Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 141), as at Carroll Creek (Mus. Vert. Zool.). This race occurs west in central California north of the Strait of Carquinez at least to Vacaville, Solano County (Mus. Vert. Zool.), and at the extreme north to Yreka, Siskiyou County. (See Swarth, Auk, XXXI, 1914, p. 516, pl. XL.)

**518 (744)      *Psaltriparus plumbeus* (Baird)**

LEAD-COLORED BUSH-TIT

Status—Common resident of arid Upper Sonoran along the desert ranges

southeast of the southern Sierra Nevada: Panamint, White, Grapevine and Inyo mountains (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 141); Providence Mountains (F. Stephens, Condor, v, 1903, p. 105); New York Mountain, at extreme east end of Providence Mountains (Hollister, Auk, xxv, 1908, p. 461). Occurs also on the east slope of the Sierras proper, as at Carroll Creek, Lone Pine Creek, and Kearsarge Pass, Inyo County (Mus. Vert. Zool.). (See Swarth, Auk, xxxi, 1914, p. 520, pl. XL.)

**519 (746)            *Auriparus flaviceps flaviceps* (Sundevall)**

VERDIN

Synonyms—*Aegithalus flaviceps*; *Paroides flaviceps*; *Auriparus flaviceps ornatus*; *Auriparus flaviceps lamprocephalus*; Yellow-headed Tit; Yellow-headed Titmouse; San Lucas Verdin.

Status—Common resident of the mesquite and catclaw associations of the Lower Sonoran deserts of southeastern California. Recorded north to Resting Springs, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 142), west to Victorville on the Mohave Desert (J. Mailliard and J. Grinnell, Condor, vii, 1905, p. 102), and to the eastern declivity of San Gorgonio Pass, across the Colorado Desert (Gilman, Condor, iv, 1902, p. 88). An abundant bird along the valley of the Colorado River from Needles to Yuma, and in the Imperial Valley region west to Vallecito, eastern San Diego County (Mus. Vert. Zool.).

**520 (742a)            *Chamaea fasciata henshawi* Ridgway**

PALLID WREN-TIT

Synonyms—*Chamaea fasciata*, part; Ground Wren, part.

Status—Common resident of the Upper Sonoran zone west of the deserts and Great Basin drainage from the Mexican line through the San Diegan district northward coastwise to San Luis Obispo and San Benito counties, and interiorly along the western foothills of the Sierra Nevada to the lower McCloud River, in Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 229); also along the inner northern coast ranges from Helena, Trinity County (L. Kellogg, Condor, xiii, 1911, p. 121), and Scott River, Siskiyou County (Mus. Vert. Zool.), south to Covelo, Mendocino County (Mus. Vert. Zool.), and Vacaville, Solano County (Mus. Vert. Zool.). The easternmost stations for this form are: vicinity of Walker Pass, Kern County (Mus. Vert. Zool.), and Campo, San Diego County (Mus. Vert. Zool.).

**521 (742)            *Chamaea fasciata fasciata* (Gambel)**

INTERMEDIATE WREN-TIT

Synonyms—*Parus fasciatus*; *Chamaea fasciata intermedia*, part; *Chamaea fasciata rufula*, part; Ground Wren, part; Ruddy Wren-tit, part; Ground Tit.

Status—Common resident of the coast region south of San Francisco Bay, from the Golden Gate to southern Monterey County; east to include the Berkeley hills and at least the west slopes of the Mount Hamilton range. Specimens indicating the existence of a race with the above range are in the Grinnell coll.



It is true that the darkest examples are from the seacoast side of the hills of San Mateo County; but these are believed to be not properly referred to *Ch. f. rufula*, although distinctly darker-colored than average *fasciata*.

**522 (742c)                    *Chamaea fasciata rufula* Ridgway**

RUDDY WREN-TIT

Synonyms—*Chamaea fasciata*, part; *Chamaca fasciata intermedia*, part.

Status—Common resident of the humid coast belt immediately north of San Francisco Bay, in Marin, Sonoma, and Mendocino counties. Northernmost station for this form: Mendocino City (Mus. Vert. Zool.).

**523 (742b)                    *Chamaea fasciata phaea* Osgood**

NORTHERN WREN-TIT

Synonyms—*Chamaea fasciata*, part; Coast Wren-tit.

Status—Fairly common resident locally in the extreme northern humid coast belt: Humboldt and Del Norte counties. The belt of intergradation, if such exists, between the northern coast forms, *phaea* and *rufula*, and the interior *henshawi* is wholly unknown to me; that is, there is no available material from series of stations appropriately located.

**524 (748a)                    *Regulus satrapa olivaceus* Baird**

WESTERN GOLDEN-CROWNED KINGLET

Synonyms—*Regulus satrapa*; Golden-crested Wren.

Status—Common as a winter visitant south through the humid coast belt (including the whole San Francisco Bay region) to Monterey; more sparingly in winter elsewhere west of the Sierras south to mountains of Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 50; Willett, Pac. Coast Avif. no. 7, 1912, p. 105). Has occurred in autumn on Santa Cruz Island (Willett, *loc. cit.*). Remains through the summer and breeds, though sparingly, in the northern humid coast belt, south to Marin County (Sheldon, Condor, x, 1908, p. 123); also summers in the Trinity Mountains (Mus. Vert. Zool.), on South Yolla Bolly Mountain (Mus. Vert. Zool.), and in the Canadian zone all along the high central Sierra Nevada, on Mount Breckenridge, Kern County (Mus. Vert. Zool.), and, in southern California, on the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 126) and San Jacinto Mountains (J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, p. 313).

**525 (749, part)              *Regulus calendula cineraceus* Grinnell**

WESTERN RUBY-CROWNED KINGLET

Synonyms—*Regulus calendula*; Ruby-crowned Kinglet; Ruby-crowned Wren; Ashy Kinglet.

Status—Common summer visitant to the Canadian zone from the Warner and Siskiyou mountains (Mus. Vert. Zool.) along the Sierra Nevada south to Long Meadow, Tulare County (Mus. Vert. Zool.). Also sparingly in southern California on San Gabriel Mountains (J. Grinnell, Condor, vi, 1904, p.

25), San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 127), and San Jacinto Mountains (Anthony, Nidologist, III, 1895, p. 16). Winters abundantly in the San Diegan district, and in the interior valleys west of the Sierras north to the head of the Sacramento Valley; also in the valley of the Colorado River. Still more abundant and widespread during spring migration. Many of the ruby-crowned kinglets wintering in the west-central part of the state are not typical of this form, being intermediate towards *R. c. grinnelli* and hence very similar to, and in some cases indistinguishable from, *R. c. calendula*, of eastern North America.

**526 (749a)                      *Regulus calendula grinnelli* Palmer**

SITKA KINGLET

Status—Fairly common midwinter visitant south through the humid coast belt to Monterey (J. Grinnell, Pac. Coast Avif. no. 3, 1902, p. 72): Santa Cruz Mountains (J. Grinnell, Condor, III, 1901, p. 48; M. P. Anderson and Jenkins, Condor, v, 1903, p. 155); San Geronimo, Marin County (several specimens in Mailliard coll.); Haywards, Alameda County (Mailliard coll.); Berkeley (J. Grinnell, Condor, XVI, 1914, p. 39). Casual south to Redlands, San Bernardino County (Bishop, Condor, VII, 1905, p. 143).

**527 (751a)                      *Polioptila caerulea obscura* Ridgway**

WESTERN GNATCATCHER

Synonyms—*Polioptila caerulea*; *Culicivora caerulea*; Blue-gray Flycatcher; Blue-gray Gnatcatcher.

Status—Common resident in Upper and Lower Sonoran zones in the San Diegan district; northward as a summer visitant locally along the western foothills of the Sierra Nevada to Baird, Shasta County (Townsend, Proc. U. S. Nat. Mus., x, 1887, p. 230), casually to Yreka, Siskiyou County (J. G. Cooper, Orn. Calif., I, 1870, p. 35); also north through the inner coast ranges to Alameda County and casually to San Mateo County (Pemberton, Condor, x, 1908, p. 239), and along the inner coast ranges north of San Francisco Bay, as at Lakeport (C. Chamberlin, Condor, III, 1901, p. 33), Mount St. Helena, Mount Sanhedrin, Covelo, etc. (Mus. Vert. Zool.); also along the desert ranges southeast of the southern Sierras (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 143). Found in winter generally in the lower parts of the southeastern section of the state, occurring across the deserts to the Colorado River. Late summer visitant to San Geronimo, Marin County (J. and J. W. Mailliard, MS); occurs through the winter as far north as Paicines, San Benito County (Mailliard coll.). Casual on Santa Cruz Island (Linton, Condor, x, 1908, p. 129), and on Santa Catalina Island (Mus. Vert. Zool.).

**528 (752)                      *Polioptila plumbea* (Baird)**

PLUMBEOUS GNATCATCHER

Synonym—*Polioptila melanura*, part.

Status—Common resident of the Lower Sonoran zone on the Colorado Des-

ert; northwest through the Salton Sea district to Palm Springs (many records), west to San Felipe Canyon, eastern San Diego County (Mus. Vert. Zool.), and north along the valley of the Colorado River to Needles (Mus. Vert. Zool.). Also Yermo, Mohave Desert (Lamb, Condor, xiv, 1912, p. 40), Goffs, eastern San Bernardino County (Hollister, Auk, xxv, 1908, p. 462), and Resting Springs, Amargosa River, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 144).

**529 (753)                      *Polioptila californica* Brewster**

BLACK-TAILED GNATCATCHER

Synonyms—*Polioptila melanura*, part; *Culicivora atricapilla*; Black-tailed Flycatcher.

Status—Common resident locally of the Lower Sonoran zone in the San Diegan district, from the Mexican line northwest to the lower Santa Clara Valley in southern Ventura County (Evermann, Auk, iii, 1886, p. 186) and even to Ventura (Mus. Vert. Zool.). Occurs only west of the desert divide, except at San Gorgonio Pass through which the range of the species extends casually in winter desertwards as far as Palm Springs (J. Grinnell, Condor, vi, 1904, p. 45).

**530 (754)                      *Myadestes townsendi* (Audubon)**

TOWNSEND SOLITAIRE

Synonyms—*Ptilogonys townsendi*; Townsend Flycatcher.

Status—Common resident of high Transition and Canadian zones on the Warner Mountains, Modoc County (Mus. Vert. Zool.), and on the Sierra Nevada from Mount Shasta south to Sirretta Meadows, Tulare County (Mus. Vert. Zool.); also in southern California, on the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 128). Occurs in summer also on the Trinity Mountains, Trinity and Siskiyou counties (Mus. Vert. Zool.), and on South Yolla Bolly Mountain (Mus. Vert. Zool.), but not known to breed in the humid coast belt proper. Winters chiefly within the Transition zone, though occurs at times in numbers in the adjacent valleys of both the desert and Pacific slopes. Found in late spring on certain desert ranges southeast of Mount Whitney (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 144). Recorded west in mid-winter sparingly to the coast region, in southern and central California; for instance, at San Diego (Belding, Land Bds. Pac. Dist., 1890, p. 250), Los Gatos (Van Denburgh, Proc. Amer. Philos. Soc., xxxviii, 1899, p. 179), Monterey (J. and J. W. Mailliard, MS), San Geronimo (J. Mailliard, Auk, xv, 1898, p. 197), and Berkeley (J. Grinnell, Condor, xvi, 1914, p. 40); numerous in February at Tower House, Shasta County (L. Kellogg, Condor, xiii, 1911, p. 121).

**531 (758)                      *Hylocichla ustulata ustulata* (Nuttall)**

RUSSET-BACKED THRUSH

Synonyms—*Turdus ustulatus*; *Turdus ustulatus swainsoni*, part; *Turdus nanus*, part; *Turdus swainsoni*; *Turdus swainsoni ustulatus*; *Hylocichla ustulata oedica*; Oregon Thrush; Olive Thrush, part.

Status—Common summer visitant in the vicinity of streams through Upper Sonoran and Transition the whole length of the state west of the desert divide. Southernmost station of actual nesting: Poway, San Diego County (Belding, Proc. Calif. Acad. Sci., 2nd ser., II, 1889, p. 57); abundant in the lowlands of the San Diegan district and west-central California, less common in the north-west coast belt and in the lower canyons of the western slopes of the Sierras, as in Yosemite Valley (several records). Widely distributed during spring migration both east and west of the divides, even to the various islands.

**532 (758a)                    *Hylocichla ustulata swainsoni* (Tschudi)**

OLIVE-BACKED THRUSH

Synonyms—*Turdus ustulatus swainsoni*, part; Olive Thrush, part.

Status—Fairly common summer visitant to the vicinity of the Warner Mountains, in Modoc County: Sugar Hill, Parker Creek, and Dry Creek (Mus. Vert. Zool.). Casual, July 22, at head of Grizzly Creek, Trinity County (no. 19447, Mus. Vert. Zool.). Transient, May 18, Panamint Mountains, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 145).

**533 (759)                    *Hylocichla guttata guttata* (Pallas)**

ALASKA HERMIT THRUSH

Synonyms—*Turdus minor*; *Turdus nanus*, part; *Turdus pallasi* var. *nanus*; *Turdus guttatus*; *Turdus aonalaschkae*, part; *Turdus aonalaschkae auduboni*, part; *Hylocichla aonalaschkae*, part; Audubon Hermit Thrush, part.

Status—Common winter visitant throughout the state below the level of heavy snows, particularly in the interior valleys and in the San Diegan district. Has been taken east to the Colorado River (J. Grinnell, Univ. Calif. Publ. Zool., XII, 1914, p. 215), and to Independence, Inyo County (Mus. Vert. Zool.).

**534 (759e)                    *Hylocichla guttata nanus* (Audubon)**

DWARF HERMIT THRUSH

Synonyms—*Turdus nanus*, part; *Turdus pallasi*; *Hylocichla aonalaschkae*, part; *Turdus aonalaschkae*, part; *Hylocichla aonalaschkae verecunda*; Dwarf Thrush.

Status—Common winter visitant south throughout the humid coast belt of central California: abundant in midwinter in the San Francisco Bay region; occurs sparingly south to Los Angeles County (Daggett, Condor, III, 1901, p. 131), Palm Springs (J. Grinnell, Condor, VI, 1904, p. 45), and San Clemente Island (Linton, Condor, X, 1908, p. 86).

*H. g. guttata* and *H. g. nanus* are, even typically, very much alike, and the differences become clearly apparent only upon comparison of series from the metropolis of each breeding area. Many winter birds from central and southern California have proven impossible to locate with precision under one or the other category.

**535 (759d) *Hylocichla guttata slevini* Grinnell**

## MONTEREY HERMIT THRUSH

Synonyms—*Turdus nanus*, part; *Turdus sequoiensis*, part; *Turdus aonalaschkae sequoiensis*, part; *Hylocichla aonalaschkae slevini*.

Status—Fairly common summer visitant in very restricted portions of the southern humid coast belt: Sherwood, Mendocino County (Mus. Vert. Zool.); South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 44; Mus. Vert. Zool.); Gualala River, Sonoma County (Sheldon, Condor, x, 1908, p. 121); Cazadero, Sonoma County (Mus. Vert. Zool.); Butano Creek, Santa Cruz Mountains (Jenkins, Condor, vi, 1904, p. 25); Big Basin, Santa Cruz Mountains (Ray, Condor, xi, 1909, p. 21); Pacific Grove (Ray, Auk, xxiii, 1906, p. 418); Point Sur, Monterey County (J. Grinnell, Auk, xviii, 1901, p. 258). Occurs in migration through the San Diegan district: Redlands (Bishop, Condor, vii, 1905, p. 143); Pasadena (Grinnell, *loc. cit.*, and Daggett, Condor, iii, 1901, p. 131). Also specimen, April 16, Raymond, Madera County (Mus. Vert. Zool.).

**536 (759e) *Hylocichla guttata sequoiensis* (Belding)**

## SIERRA HERMIT THRUSH

Synonyms—*Turdus aonalaschkae*, part; *Turdus auduboni*; *Turdus aonalaschkae auduboni*, part; *Hylocichla aonalaschkae auduboni*; *Turdus sequoiensis*; *Turdus aonalaschkae sequoiensis*, part; *Hylocichla aonalaschkae sequoiensis*; Audubon Hermit Thrush, part.

Status—Fairly common summer visitant to the Canadian zone, from Mount Shasta south through the central Sierra Nevada to the Mount Whitney region: Sirretta Meadows, Tulare County (Mus. Vert. Zool.); also on the Warner Mountains, Modoc County (Mus. Vert. Zool.), Panamint and Inyo mountains, Inyo County (A. K. Fisher, N. Amer. Fauna no. 7, 1893, p. 146), and on the San Bernardino Mountains (J. Grinnell, Univ. Calif. Publ. Zool., v, 1908, p. 130). Strange to say, this form has not to my knowledge been captured as a migrant anywhere within the state, save at Independence, Inyo County (Mus. Vert. Zool.). Various records of “*auduboni*” apply to *H. g. guttata*.

**537 (761a) *Planesticus migratorius propinquus* (Ridgway)**

## WESTERN ROBIN

Synonyms—*Turdus migratorius*; *Merula migratoria propinqua*; *Merula confinis*; *Planesticus confinis*; Cape Robin; San Lucas Robin.

Status—Common summer visitant to the Transition and Canadian zones along the entire Sierra Nevada, in the Humboldt Bay region, and on the Trinity and Warner mountains (Mus. Vert. Zool.); also in southern California, on Mount Pinos (J. Grinnell, Auk, xxii, 1905, p. 391), San Gabriel Mountains (J. Grinnell, Bds. Los Angeles Co., 1898, p. 51), and San Bernardino Mountains (many records). Not known to breed anywhere in the San Francisco Bay region proper; southernmost breeding stations west of Sacramento Valley: Seaview and Cazadero, Sonoma County (J. and J. W. Mailliard, MS), and San Geronimo, Marin County (J. and J. W. Mailliard, MS). Occurs in winter abundantly, but

irregularly elsewhere throughout the state, even in suitable places on the deserts. The movements of the robin in winter appear to be governed largely by the varying supply of wild berries.

**538 (763) *Ixoreus naevius naevius* (Gmelin)**

VARIED THRUSH

Synonyms—*Turdus naevius*, part; *Hesperocichla naevia*, part; *Geocichla naevia*; Oregon Robin; Varied Robin; Western Robin, part.

Status—Common winter visitant, chiefly to the humid coast belt and adjacent areas south to Monterey County. This is the form prevalent in midwinter in the San Francisco Bay region. Summers sparingly in the Canadian zone of the northern humid coast belt: Lindsay and Redwood creeks, Humboldt County (W. K. Fisher, Condor, III, 1901, p. 91); Fair Oaks and Cuddeback, Humboldt County (Mus. Vert. Zool.).

**539 (763a) *Ixoreus naevius meruloides* (Swainson)**

NORTHERN VARIED THRUSH

Synonyms—*Turdus naevius*, part; *Hesperocichla naevia*, part.

Status—Common but irregular winter visitant to the interior and southern portions of the state west of the desert divide, particularly the western foothills of the Sierras, and the San Diegoan district south through Los Angeles County at least as far as Witch Creek, San Diego County (Willett, Pac. Coast. Avif. no. 7, 1912, p. 109), and to San Clemente Island (Linton, Condor, x, 1908, p. 86). Recorded interiorly to Walker Basin and Caliente, Kern County (Henshaw, Rep. Wheeler Surv., 1876, p. 226), and Yermo, San Bernardino County (Lamb, Condor, XIV, 1912, p. 40). Although this form breeds in Alaska to the northward of *I. n. naevius*, it winters in California south of that form. Several specimens examined from central California are not with certainty identifiable with either one or the other of the forms. Individual variation evidently results in overlapping of characters in certain individuals, and there are also known to be true intergrades occurring in interlying areas of the summer habitat.

**540 (767+767b, part) *Sialia mexicana occidentalis* Townsend**

WESTERN BLUEBIRD

Synonyms—*Sialia mexicana*; *Sialia occidentalis*; *Sialia mexicana anabelae*; *Sialia mexicana bairdi*; Anabel Bluebird; San Pedro Bluebird; Chestnut-backed Bluebird.

Status—Common summer visitant to Transition and lower Canadian wherever these zones occur, nearly throughout the state. Least numerous in the northern humid coast belt; breeds also, but sparingly and locally, in Upper Sonoran, and in a few cases even in Lower Sonoran, as at Los Angeles (Myers, Condor, XIV, 1912, p. 221). Winters sparingly in Transition, and abundantly in Upper and Lower Sonoran, on both the desert and Pacific drainage slopes, south to the Mexican boundary. The recognition of a race *anabelae* from southern California does not seem to be justified (see J. Grinnell and Swarth, Univ. Calif. Publ. Zool., x, 1913, pp. 316-319).

541 (768)

***Sialia currucoides*** (Bechstein)

## MOUNTAIN BLUEBIRD

Synonyms—*Sialia arctica*; Arctic Bluebird; Rocky Mountain Bluebird.

Status—Locally common as a summer visitant chiefly to arid Transition and Boreal on the Sierra Nevada, and on the desert ranges to the eastward; north to Mount Shasta (C. H. Merriam, N. Amer. Fauna no. 16, 1899, p. 133), and the Warner Mountains (Mus. Vert. Zool.); south to San Bernardino Mountains (Morcom, Ridgw. Orn. Club, bull. no. 2, 1887, p. 57). Also in the inner northern coast ranges: Wild Cat Peak, Siskiyou County (Mus. Vert. Zool.); Mount Sanhedrin (Stone, Proc. Acad. Nat. Sci. Phila., 1904, p. 585); South Yolla Bolly Mountain (Ferry, Condor, x, 1908, p. 44). Ranges irregularly in winter throughout Upper and Lower Sonoran, on the deserts and west to the Pacific, even to the Farallon Islands (W. E. Bryant, Proc. Calif. Acad. Sci., 2nd ser., 1, 1888, p. 50), and south to San Diego (Ritter, MS); but not in the northern humid coast belt.

SPECIES CREDITED TO CALIFORNIA ON  
UNSATISFACTORY GROUNDS

The following list of "hypotheticals" contains the names of certain birds which at one time or another have been ascribed to California, but which do not now seem to merit claim to regular standing. In some cases there is doubt as to the fact of their occurrence, through natural means, or even otherwise, within the present confines of the state. In other cases their validity as species or subspecies is in doubt; most cases of this category have, however, been disposed of in the preceding lists of synonyms, and can be located through the Index.

In addition, there are yet a good many other bird names, not mentioned in this contribution at all, and which have been associated with the geographic name "California". These occur mostly in the writings of early date, at a time when "California" was a much more extensive, and undefined, portion of the west.

In many cases birds known only from *Lower California*, Mexico, have been referred to in general works as from simply *California*. Also *southern California* (that is, the southern part of the *state*) has sometimes, even within recent years, been confused with Lower California, especially in foreign works the authors of which had evidently not posted themselves upon the geography of western North America.

To ferret out from the great volume of general ornithological literature all of these ascriptions is a task which the writer has never attempted. The following 61 cases are believed to include the more important of our doubtful records, such as merit consideration because of ostensibly valid claims or because of repetition in the more familiar literature.

An entirely different category of occurrences has to do with man's importation and release of non-native song and game species. This deplorable custom continues in spite of the good biologic and economic arguments which have been

set forth against it. As far as known to the writer, however, not one of the numerous "introduced" species has secured unquestioned foothold in our fauna, except the English Sparrow. Even this bird is not definitely known to have been purposely liberated at the outset, but may have found its own way here from the east (see p. 111).

No attempt has been made to catalog here all the different species, perhaps scores in number, that have been liberated within the state of California. A few, only, are included in the following list, where exact data are at hand. The importance of learning the source and history of every importation is fully realized, and is hereby urged upon anyone in a position to ascertain the facts, on the ground that, if successful from the importers' standpoint (the exotic species becoming established as a member of our avifauna), profound modification of our originally native bird-life will inevitably follow, as regards distribution and even persistence of species.

So far, the only non-native species beyond question established within the state, is the English Sparrow, and only this one "foreign" member of our avifauna is entered in the preceding main list. It is possible that the Ring-necked Pheasant, has, among all the imported game species, reached a stage of establishment where it now deserves inclusion in the main list. But this is not certain, and the bird is entered beyond as being still "hypothetical".

#### HYPOTHETICAL LIST

##### 1 (5) **Colymbus dominicus brachypterus** Chapman

##### MEXICAN GREBE

Synonyms—*Colymbus dominicus*; *Podiceps dominicus*; San Domingo Grebe.

Status—Gambel's alleged ascription of this species in "1847" to "California", although often quoted, has been discredited (see Coues, Bull. Nutt. Orn. Club, II, 1877, p. 26; J. G. Cooper, Bull. Nutt. Orn. Club, II, 1877, p. 97). I must say, however, that I have failed to find any reference to this species in the papers published by Gambel in either the *Journal* or the *Proceedings* of the Academy of Natural Sciences of Philadelphia. I wrote to Dr. Witmer Stone of the Philadelphia Academy in this regard, and he informs me that he, too, is unable to find any mention of this grebe in the publications of Gambel. Mr. Stone suggests that the possible basis of the reference of the species to California is to be found in Volume IX, Pac. R. R. Rep., 1858, p. 897, where it is stated that "a specimen in the Philadelphia Academy was obtained by Dr. Gamble [sic] on the Gulf of California". Mr. Stone says further: "I find in our collection only one Grebe collected by Gambel, which is labelled Monterey, and proves to be a young *C. nigricollis californicus*." Whether or not this is the bird referred to, it is obvious that there are no good grounds for considering *C. dominicus* a member of our avifauna. The species belongs to Central America and Mexico.



**2 (26)                    *Brachyramphus craverii* (Salvadori)**

## CRAVERI MURRELET

Status—Recorded by Van Rossem (Condor, xvii, 1915, p. 74) as having been obtained in numbers on the ocean “about midway between San Diego and” Los Coronados Islands, thus very close to the California-Mexico boundary. Even if well within Californian limits, the case demands further study on the ground of questionable differentiation of *B. craverii* from *B. hypoleucus*. A hasty glance at the material in the Museum of Vertebrate Zoology leads me to suggest age as accounting for at least some of the alleged characters.

**3 (56)                    *Larus canus* Linnaeus**

## MEW GULL

Status—Not one of the eight records of this species for California is likely to have been based on specimens identical specifically with the palearctic *Larus canus*. In at least one case (Beck, Proc. Calif. Acad. Sci., 4th ser., III, 1910, p. 63) the name *canus* is used as replacing the name *brachyrhynchus*, the latter being reduced to a synonym of the former. In other cases, either the basic specimens are not now accessible or they have turned out to be other species. (See Linton, Condor, ix, 1907, p. 199; Bishop, Condor, xii, 1910, p. 174.)

**4 (4, hyp.)                *Creagrus furcatus* (Neboux)**

## SWALLOW-TAILED GULL

Synonyms—*Xema furcata*; *Larus furcatus*.

Status—Stated by Prevost and Des Murs (Voyage of the Venus, 1855, p. 277, pl. x of Atlas) to have been taken at Monterey. Several birds of tropical America are also ascribed to Monterey. The expedition touched the coasts of Peru, Chili, the Galapagos Islands (where this gull is well known to occur), and San Blas, as well as Monterey in upper California, and it looks as though there might have been some mixing of labels. Under these circumstances, little faith can be placed in this record alone. The species has been more recently reported as “seen” off San Diego (Anthony, Auk, xii, 1895, p. 291), still not quite satisfactory enough evidence to establish it in our list.

**5 (82.1)                 *Diomedea immutabilis* Rothschild**

## LAYSAN ALBATROSS

Synonyms—*Diomedea melanophrys*; Spectacled Albatross.

Status—An individual “seen” at a distance, “about 1060 miles west of Cape Mendocino”, October 31, 1880 (Bean, Proc. U. S. Nat. Mus., v, 1882, p. 170). Even if authentic, this is somewhat beyond our limits, as is, even, the recorded occurrence of two individuals 750 to 600 miles “southwesterly from San Francisco” (Willett, Condor, xv, 1913, p. 158). My authority for putting Bean’s record under *D. immutabilis* is Godman (Mon. Petrels, 1910, p. 336). The species is plentiful in the vicinity of the Hawaiian Islands.

6 (83)

**Thalassogeron culminatus** (Gould)

YELLOW-NOSED ALBATROSS

Status—Known to California only from a skull thought by J. G. Cooper to have been of this species, and “found on the outer beach near Golden Gate”; the skull was formerly in the California Academy of Sciences (Baird, Brewer, and Ridgway, *Water Bds. N. Amer.*, II, 1884, p. 359; J. G. Cooper, *Proc. Calif. Acad. Sci.*, IV, 1868, p. 12), now probably destroyed. The species belongs to the South Pacific and Indian oceans.

7 (84)

**Phoebetria palpebrata** (Forster)

SOOTY ALBATROSS

Synonym—*Phoebetria fuliginosa*, part.

Status—Ascribed to California (W. E. Bryant, *Zoe*, III, 1892, p. 137) merely because it is a southern species and had been found off the coast of Oregon. No definite record for the state. The citation referred to by Willett (*Pac. Coast Avif.* no. 7, 1912, p. 110) undoubtedly belongs to *Diomedea nigripes*. The species belongs to the southern Hemisphere.

8 (85)

**Macronectes giganteus** (Gmelin)

GIANT FULMAR

Synonyms—*Fulmarus giganteus*; *Ossifraga gigantea*.

Status—Known only from the statement by J. G. Cooper (*Amer. Nat.*, IV, 1871, p. 758) that this huge petrel “could often be seen” in the summer of 1861 about the whale fishery in Monterey Bay. Lack of specimens or later confirmatory evidence casts a slight degree of doubt upon the record. The species belongs to the southern Hemisphere.

9 (87)

**Priocella glacialoides** (Smith)

SLENDER-BILLED FULMAR

Synonym—*Fulmarus glacialoides*.

Status—One rather uncertain instance: A skeleton supposed to be of this bird found by J. G. Cooper on the beach at Santa Catalina Island in June, 1863 (Baird, Brewer, and Ridgway, *Water Bds. N. Amer.*, II, 1884, p. 374). The citation quoted by Willett (*Pac. Coast Avif.* no. 7, 1912, p. 110) proves upon examination to refer to the same instance. This species occurs chiefly south of the Equator.

10 (113)

**Phaëthon aethereus** Linnaeus

RED-BILLED TROPIC-BIRD

Status—According to W. E. Bryant (*Proc. Calif. Acad. Sci.*, 2nd ser., II, 1889, p. 86), Dr. J. G. Cooper averred “that a skull of a tropic bird was found by Mr. Gruber on the coast of Marin County about twenty years” previously. There is no confirmatory evidence in this regard, although the species continues to be credited to California (as, for instance, by Reed, *N. Amer. Birds Eggs*, 1904, p. 55). The species is known to occur north along the Mexican coast as

far as Cape Colnett, Lower California, and is likely to be observed sooner or later north of the Mexican boundary.

**11 (115.1) *Sula brewsteri* Goss**

BREWSTER BOOBY

Synonyms—*Sula fiber*; *Sula fusca*; *Sula bassana* (?); Gannet (?); Booby.

Status—Newberry (Pac. R. R. Rep., vi, 1857, pp. 107, 108) records seeing two species of *Sula* "off the coast of California" during a voyage from San Francisco to Panama. One he calls: "*Sula bassana*. The Gannet"; the other: "*Sula fusca*. The Booby". It is not probable that any species of the genus was seen north of Lower California. Of the two or more species occurring off the west coast of Mexico, *Sula brewsteri* is the one which has been found farthest north and hence is the one most likely to be detected as a stray above the Mexican line.

**12 (120b) *Phalacrocorax auritus cincinatus* (Brandt)**

WHITE-CRESTED CORMORANT

Synonyms—*Phalacrocorax cincinatus*; *Phalacrocorax dilophus cincinatus*, part.

Status—Supposed to be a winter visitant northerly: San Francisco Bay (Kobbe, Bailey's Handbook Bds., 1902, p. xlix; see also Baird, Brewer, and Ridgway, Water Bds. N. Amer., ii, 1884, p. 150; and A. O. U. Check-List, 3rd ed., 1910, p. 63). The occurrence of this form in California is difficult to verify because of absence of series of winter specimens of the *auritus* group for critical determination. I cannot see that there are as yet good grounds for including *cincinatus* in our main list. The form breeds in Alaska.

**13 (169.1) *Chen caerulescens* (Linnaeus)**

BLUE GOOSE

Status—But one record: Two shot near Stockton "about February 1", 1892 (Belding, Zoe, iii, 1892, p. 97); parts of one of the birds were saved and submitted to Ridgway, who is stated (Belding, *loc. cit.*) to have determined them as above. I do not know whether or not the fragments are yet in existence, but since the bird was pronounced a juvenal by Ridgway, and since there is said to be difficulty in distinguishing the young plumages in the Snow and Blue geese, the record seems open to question, more particularly because of absence of confirmation. (See Swarth, Condor, xv, 1913, p. 43.) The Blue Goose winters regularly in the Gulf States, with no positive record at any season west of the Mississippi Valley.

**14 (172b) *Branta canadensis occidentalis* (Baird)**

WHITE-CHEEKED GOOSE

Status—Until quite recently supposed to be a regular winter visitant through the interior, even as far south as San Diego (Belding, Zoe, iii, 1892, p. 100). Supposed also to be the form breeding in the northeastern section of the

state. But careful study of the extensive material in the Museum of Vertebrate Zoology now makes it practically certain that all records of "*occidentalis*" really belong under *canadensis* proper, which see. (See also Swarth, Univ. Calif. Publ. Zool., xii, 1913, pp. 1-24, figs. and pls.)

15 (200) **Florida caerulea** (Linnaeus)

LITTLE BLUE HERON

Status—One record: Sequoia and General Grant National Parks, "rare winter visitant" (Fry, U. S. Dept. Interior, General Information Regarding Sequoia and General Grant National Parks, Season of 1912, p. 8). Very doubtful (see J. Grinnell, Condor, xv, 1913, p. 188). The species is normally confined to the South Atlantic and Gulf states, straggling northwest to Nebraska.

16 (204) **Grus americana** (Linnaeus)

WHOOPIING CRANE

Status—Said to have formerly bred "from Upper California northward" (Audubon, Bds. Amer., v, 1842, p. 195). More recently reported as seen in spring and fall in Butte and Sutter counties (Belding, Zoe, ii, 1891, p. 99). Neither case is conclusive. The species is now rare even where once most plentiful—in central British America south to the Great Plains.

17 (228) **Philohela minor** (Gmelin)

WOODCOCK

Status—One specimen listed from "California" by Sharpe (Cat. Bds. British Mus., xxiv, 1896, p. 681); there is no corroboration. The Woodcock, a common bird of parts of the eastern United States, has not been definitely recorded west of Colorado.

18 (240) **Pisobia fuscicollis** (Vieillot)

WHITE-RUMPED SANDPIPER

Synonym—*Tringa fuscicollis*.

Status—Known only from the record by W. E. Bryant (Auk, iv, 1887, p. 78) of a female specimen taken near Oakland, October 8, 1883. This specimen was in the first California Academy of Sciences collection, but was doubtless destroyed in the fire of April, 1906. This record has already been queried (Goss, Bds. Kansas, 1891, p. 174). I distinctly remember to have looked at the specimen, labeled in Bryant's handwriting. Mr. L. M. Loomis with whom I was at the time (fall of 1900) remarked that the identification was wrong, and that the bird was probably *Tringa* (= *Pisobia*) *maculata* (see p. 50). The White-rumped Sandpiper migrates chiefly, if not altogether, east of the Rocky Mountains.

19 (251) **Limosa haemastica** (Linnaeus)

HUDSONIAN GODWIT

Synonym—*Limosa hudsonica*.

Status—Three specimens are listed as from "California", without statement

of more exact locality, by Sharpe (Cat. Bds. British Mus., xxiv, 1896, pp. 391, 756). As remarked by Cooke (U. S. Biol. Surv., Bull. no. 35, 1910, p. 53), this record needs confirmation. Although occurring in summer in subarctic America west to western Alaska, this species appears to pass in migration wholly east of the Rocky Mountains.

**20 (266)                      Numenius borealis (Forster)**

ESKIMO CURLEW

Status—Ascribed to the state three times: "common" "in the San Francisco market" (Heermann, Pac. R. R. Rep., x, 1859, p. 66); specimen shot at San Diego in September, 1883 (Holterhoff, Auk, i, 1884, p. 393); "flock of about a dozen" seen "a number of years ago" by P. I. Hoagland "at Coronado Beach, near Tia Juana", and a few shot [but evidently not preserved] (Swenk, Proc. Nebr. Orn. Union, vi, 1915, p. 31). The first two of these records, at least, are believed to have been based upon small specimens of *N. hudsonicus* (see Belding, Zoe, iii, 1892, p. 257). As far as known the species (now nearly or quite extinct) passed in migration entirely east of the Rocky Mountains.

**21 (276)                      Aegialitis dubia (Scopoli)**

LITTLE RINGED PLOVER

Synonyms—*Aegialitis microrhynchus*; *Aegialitis curonica*.

Status—Possibly a casual visitant; one instance: specimen (no. 39523, U. S. Nat. Mus.) supposed to have been taken at San Francisco (Ridgway, Amer. Nat., viii, 1874, p. 109; Baird, Brewer, and Ridgway, Water Bds. N. Amer., i, 1884, p. 160). As indicated by the question mark in the account under the second citation, some doubt appertains to this record. The species is palearctic, and has occurred casually in Alaska.

**22 (283)                      Arenaria interpres interpres (Linnaeus)**

EUROPEAN TURNSTONE

Status—An immature female Turnstone taken at Pacific Beach, San Diego County, September 8, 1904, is so identified by L. B. Bishop and H. C. Oberholser (Bishop, Condor, vii, 1905, p. 141). Examination of a series of the ordinary Ruddy Turnstone reveals such wide variation individually that I am led to query the above instance.

**23 (—)                      Phasianus torquatus Gmelin**

RING-NECKED PHEASANT

Synonyms—China Pheasant; Mongolian Pheasant.

Status—Numbers have been repeatedly liberated under both private and public auspices. The earliest recorded experiment was in 1894, and from 1897 to 1900 many more were brought in from Oregon and liberated; later, a game farm was established by the California Fish and Game Commissioners, and pheasants propagated for stocking (Oldys, U. S. Dept. Agric., Farmers' Bull. 390, 1910, p. 16). According to the latest statements of the State Fish and Game Commission (22nd Biennial Rep., 1913, pp. 23-24; 23rd Biennial Rep.,

1914, p. 14), "during the past several years, over four thousand pheasants have been liberated" at a large number of points. Locally, in Humboldt and Santa Clara counties, and in parts of the San Joaquin Valley, the birds are reported to be thriving in the wild. Instances of breeding at large have been reported numerously, a late one being from San Bernardino (Wall, Condor, xvii, 1915, p. 59). Elapse of a series of years will be required to demonstrate the firm establishment of this bird in California, as has been the case in Oregon. The exact systematic status of our introduced pheasants has not been ascertained, but there is a likelihood that more or less crossing has been allowed with near-related species such as *P. colchicus*. The Ring-necked Pheasant is a native of eastern China.

24 (—) **Perdix perdix** (Linnaeus)

HUNGARIAN PARTRIDGE

Status—Considerable effort has been made by the California Fish and Game Commission to introduce this species into California. Two hundred birds were liberated in 1908, and 1600 in 1909 (Oldys, Yearbook U. S. Dept. Agric., 1909, p. 255). "These were placed in several counties in both lowlands and small mountain valleys up to several thousand feet above sea level." The latest statement from the State Fish and Game Commission (22nd Biennial Rep., 1913, p. 24) is that, although "given a good trial", no success has been met with. "There have been very few places where they have been seen in recent months." The Hungarian Partridge is a native of Europe.

25 (289) **Colinus virginianus virginianus** (Linnaeus)

BOB-WHITE

Status—Repeated attempts have been made to introduce this eastern game-bird into the state; but so far as known to date, all have failed. According to Belding (Land Bds. Pac. Dist., 1890, p. 8), Bob-whites had been liberated previous to 1890 in Napa County, near Gilroy, Santa Clara County, and near Chico, Butte County. This eastern quail did not occur naturally west of Colorado.

26 (—) **Lophortyx douglasi** (Vigors)

DOUGLAS QUAIL

Synonyms—*Ortyx douglasi*; *Callipepla douglasi*.

Status—Described as new on the basis of a specimen thought to have come from "Monterey" (Vigors, Zool. Journ., iv, 1829, p. 354). Stated by Douglas (Trans. Linn. Soc., xvi, 1829, p. 145) to have been found in the "interior of California", but not as common as *Ortyx picta* or *O. californica*; specimens lost. According to Gambel (Journ. Acad. Nat. Sci. Phila., 2nd ser., i, 1849, p. 218) common about Mazatlan, Mexico, where "no doubt" Vigors' bird was obtained, not at Monterey. Possibly the "young of *L. californicus*", according to J. G. Cooper (Bull. Nutt. Orn. Club, ii, 1877, p. 95). Etcetera! At any rate a quail for which the above name has been employed (Cat. Bds. British Mus., xxii, 1893, p. 404) inhabits portions of western Mexico, and it is very unlikely that it ever occurred at Monterey or anywhere else in the state of California.

**27** (310, subsp.?) **Meleagris gallopavo** (Linnaeus)

## WILD TURKEY

Status—Turkeys, of unknown subspecies, supposedly from wild stock in some part of Mexico, have been liberated in recent years in a number of counties from Humboldt and Shasta to San Diego, particularly “in the lower Sierra Nevada region” (Calif. Fish and Game Comm., 22nd Biennial Rep., 1913, pp. 23-24). According to information gathered by A. D. Ferguson (Calif. Fish and Game Comm., Game Bull. no. 1, 1913, pp. 35-40) the birds introduced in 1910-11 in the vicinity of the Sequoia and General Grant National Parks are so far apparently holding their own.

**28** (14, hyp.) **Buteo cooperi** Cassin

## COOPER HENHAWK

Synonym—California Hawk.

Status—Known only from the type specimen shot by J. G. Cooper near Mountain View, Santa Clara County, November, 1855 (Cassin, Proc. Acad. Nat. Sci. Phila., 1856, p. 253; J. G. Cooper, Pac. R. R. Rep., XII, 1860, p. 148; J. G. Cooper, Orn. Calif., I, 1870, p. 472; etc.). The specimen is still extant, in the U. S. National Museum (no. 8525); the latest study of the case (Ridgway, Auk, II, 1885, p. 165) results in no definite conclusion. The bird was evidently nearly related to the *Buteo borealis* group. The date of capture, as recorded in the Smithsonian records (as I am informed by Dr. C. W. Richmond) is given as “October, 1856”. This is also the date quoted in the A. O. U. Check-List (3rd ed., 1910, p. 372). But that both are wrong is shown by Cooper’s repeated statement as above, and also that Cassin *published* the description in the Philadelphia Academy *Proceedings* for October, 1856, which date of publication obviously could not have been the date of capture, as well. (See also Ridgway, Auk, I, 1884, p. 253.)

**29** (—) **Buteo solitarius** Cassin

## HAWAIIAN HAWK

Synonyms—*Onychotes gruberi*; *Onychotes solitarius*; Gruber Hawk.

Status—Originally described as new under the name *Onychotes gruberi* (Ridgway, Proc. Acad. Nat. Sci. Phila., 1870, p. 149) from a specimen with no more definite locality than “California”. Later (Ridgway, Proc. U. S. Nat. Mus., VIII, 1885, p. 36), this specimen was found to be identical with the Hawaiian species, *Onychotes* (= *Buteo*) *solitarius*, thus making it improbable that it was obtained in California as alleged. However, Henshaw (Auk, XVIII, 1901, p. 162) records that an individual of the Hawaiian Hawk voluntarily accompanied a vessel part way from Hilo to San Francisco; so that the casual occurrence of the species in California is within possibility, but not proven.

**30** (341) **Buteo albicaudatus sennetti** Allen

## SENNETT WHITE-TAILED HAWK

A hawk thought to have been of this Mexican species was seen at Golden

Gate Park, San Francisco, November 7, 1905 (J. Mailliard, *Condor*, viii, 1906, p. 29). Mr. Mailliard has in a personal letter to me expressed doubts as to this identity; possibly the bird was a Ferruginous Rough-leg.

**31 (345)                    *Urubitinga anthracina* (Lichtenstein)**

MEXICAN BLACK HAWK

Status—Eggs described, said to have been taken in Los Angeles County, April 6, 1889, by R. B. Chapman (*Reed, N. Amer. Birds Eggs*, 1904, p. 164); identity extremely doubtful. The record from National City, San Diego County (Linton, *Condor*, ix, 1907, p. 110) proved to be based upon a specimen of *Buteo abbreviatus* (Linton, *Condor*, x, 1908, p. 181). The Mexican Black Hawk occurs regularly north to southern Arizona and Texas.

**32 (362)                    *Polyborus cheriway* (Jacquin)**

AUDUBON CARACARA

Synonyms—*Polyborus tharus*; *Polyborus tharus* var. *auduboni*; *Polyborus auduboni*; Caracara Eagle.

Status—One individual is recorded as having been seen in the winter of 1853 on the Colorado River near Fort Yuma, though which side of the river is not stated (Heermann, *Pac. R. R. Rep.*, x, 1859, p. 30). The occasional presence of this bird in the extreme southeastern corner of the state is to be expected as it occurs adjacently in Mexico and southern Arizona; but no actual occurrence within our borders has as yet been well attested.

**33 (373d)                    *Otus asio kennicotti* (Elliot)**

KENNICOTT SCREECH OWL

Synonym—*Megascops asio kennicotti*.

Status—While this northwest coast form may be expected to occur in the extreme northern humid coast belt, particularly in winter, satisfactory evidence to this effect is still wanting. Townsend (*Proc. U. S. Nat. Mus.*, x, 1887, p. 203) found fragments of an owl thought to be of this form at Baird, Shasta County; and a specimen from Fort Crook, Shasta County, was "intermediate between *kennicotti* and *bendirei*". Emerson (*Condor*, viii, 1906, p. 29) records a specimen taken at Haywards, Alameda County, December 15, 1882, as either *kennicotti* or a variant of *bendirei*, which, is uncertain.

**34 (374a)                    *Otus flammeolus idahoensis* (Merriam)**

DWARF SCREECH OWL

Synonym—(See *Otus flammcolus*, p. 72).

Status—Ascribed to California with expressed reluctance by Oberholser in his study of this species (*Ornis*, x, 1899, [separate, repaged] p. 12), and since then accepted as a member of our avifauna by authors at full value. A close scrutiny of Oberholser's analysis of characters of *idahoensis* as compared with *flammcolus*, and his comment on the varying features of individual specimens, leaves the reader with a distinct impression that the name *idahoensis* rests on



very flimsy basis. At any rate, I have examined the thirteen available specimens of *flammeola* from Arizona and California, and find no tangible excuse for using separate names. According to my present interpretation of the case the California birds should all rest under the name *flammeolus*, which see (p. 72). "*Idahoensis*" was based upon a single specimen from near Ketchum, Idaho.

[Since the above was written, Ridgway (Bds. N. and Mid. Amer., vi, 1914, p. 730) has expressed similar views, and listed the name *idahocnsis* in the synonymy of *flammeolus*.]

**35 (384) *Crotophaga sulcirostris* Swainson**

GROOVE-BILLED ANI

Status—Said to be "casual" in "California" (Bendire, Life Hist., II, 1895, p. 9; F. M. Bailey, Handbook Bds., 1902, p. 193). I have found no specific basis for such statement. Possibly *Lower* California was meant, though the species is well known to occur regularly in the vicinity of Cape San Lucas. It belongs to Tropical America.

**36 (391) *Ceryle americana septentrionalis* Sharpe**

TEXAS KINGFISHER

Synonyms—*Ceryle americana*; *Ceryle americana cabanisi*; *Ceryle cabanisi*; Cabanis Kingfisher; Texas Green Kingfisher.

Status—Recorded twice: as observed in the fall of 1865 "at several points on the Colorado River between Forts Mojave and Yuma" (Coues, Proc. Acad. Nat. Sci. Phila., 1866, p. 59); and as seen at Poway Valley, San Diego County (Emerson, Orn. & Ool., ix, 1884, p. 144). The latter is very likely a misidentification. Coues, however, recorded both the Belted and Texas kingfishers at the same time, and furthermore repeated his Colorado River record over and over again. There has never been a verification, however; besides, it is not stated whether the species was observed on the California or Arizona side of the river, or on both sides, for the implication is that several of the birds were seen. The Texas Kingfisher belongs to tropical Mexico and has occurred casually in southeastern Arizona.

**37 (406) *Melanerpes erythrocephalus* (Linnaeus)**

RED-HEADED WOODPECKER

Status—Recorded by Gambel (Journ. Acad. Nat. Sci. Phila., 2nd ser., I, 1847, p. 55) as found by him common in oak timber near the Mission of San Gabriel (Los Angeles County). The alleged occurrence has been given full face value in various publications since then; but its extreme unexpectedness, and lack of later corroboration, bring overwhelming doubt but that there was some mistake. This eastern woodpecker occurs west to Colorado, and has been found casually in Arizona.

**38 (426) *Eugenes fulgens* (Swainson)**

RIVOLI HUMMINGBIRD

Status—One record, of an adult male said to have been taken in San Gor-

gonio Pass, July 15, 1899 (Loomis, Auk, xix, 1902, p. 83). The authenticity of the locality of capture has been doubted (see F. Stephens, Condor, iv, 1902, p. 45). The species is not certainly known to occur nearer than the mountains of southeastern Arizona—in the Transition zone, whereas San Gorgonio Pass is Lower Sonoran, barely low Upper Sonoran at its highest part.

39 (—) **Archilochus violajugulum** (Jeffries)

VIOLET-THROATED HUMMINGBIRD

Synonym—*Trochilus violajugulum*.

Status—The type and only known specimen was obtained at Santa Barbara (J. A. Jeffries, Auk, v, 1888, p. 168). This specimen is with little doubt a hybrid, probably between *Archilochus alexandri* and *Calypte anna* (see Thayer and Bangs, Auk, xxiv, 1907, p. 313).

40 (—) **Selasphorus floresii** Gould

FLORESI HUMMINGBIRD

Synonyms—*Trochilus floresii*; *Selasphorus rubromitratus*.

Status—Three instances of the occurrence in California of this supposed species have been reported: male, near San Francisco, May, 1885 (W. E. Bryant, Forest & Stream, xxvi, 1886, p. 426); male, Haywards, February 20, 1901 (Emerson, Condor, iii, 1901, p. 68); Nicasio, Marin County, February 26, 1909 (W. P. Taylor, Auk, xxvi, 1909, p. 291). These examples may be accounted for as resulting from hybridization between *Selasphorus alleni* and *Calypte anna* (see Thayer and Bangs, Auk, xxiv, 1907, p. 313; W. P. Taylor, *loc. cit.*; Ridgway, Auk, xxvi, 1909, p. 440).

41 (432) **Selasphorus platycercus** (Swainson)

BROAD-TAILED HUMMINGBIRD

Synonym—*Trochilus platycercus*.

Status—Recorded from California three times: (1) Lake Tahoe, a female taken (J. G. Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 7; and many repetitions). The identity in this case has already been doubted (by Henshaw, Rep. Wheeler Surv., 1879, p. 311, who thought the bird might have been *S. calliope*). On January 6, 1908, I found in the U. S. National Museum a specimen (then uncatalogued), evidently a young male of *S. rufus*, but with the following inscription upon the two sides of the label, in J. G. Cooper's handwriting: "Selasphorus platycercus ♀ | Tajo Valley Cal. | Sept 12—1863—J. G. C. || 3 75 4 75 1 87 Iris brown, bill | & Feet black". This bird would appear to have been the basis of Cooper's record.

(2) A. K. Fisher (N. Amer. Fauna no. 7, 1893, p. 58) records that this species was reported by Mr. Nelson "as common on the western slope of the Sierra Nevada, California, opposite the head of Owens River, and Mr. Palmer secured a specimen in the Sequoia National Park August 4". Dr. A. K. Fisher informs me (under date of December 4, 1907) that the specimen secured by Dr. Palmer is not now to be found, and he cannot recall having seen it himself; also

that Mr. Nelson thinks he might have been mistaken in the identity of the hummingbirds seen opposite the head of Owens River.

(3) Male taken at Oakland May 8, 1890 (McGregor, Auk, xiv, 1897, p. 91). This specimen proved to be a probable hybrid between *Scelasphorus rufus* and *Stellula calliope* (Thayer and Bangs, Auk, xxiv, 1907, p. 313).

It thus appears that *Scelasphorus platycercus* has yet to be satisfactorily identified within the state. It is a species belonging to the Rocky Mountain region of the United States, and has been found west to western Nevada.

42 (442) **Muscivora tyrannus** (Linnaeus)

FORK-TAILED FLYCATCHER

Synonym—*Milvulus tyrannus*.

Status—Toppan (Orn. & Ool., ix, 1884, p. 48) states: "I have lately received from a dealer in California curiosities at Santa Monica, Cal., a fine specimen of the Fork-tailed Flycatcher, (*Milvulus tyrannus*,) which was shot near that place in the latter part of the Summer of 1883". The circumstances of capture are not definitely attested. Mr. Toppan writes me under date of April 18, 1912, that the specimen in question was destroyed by fire in 1896. The species belongs to Tropical America, from southern Mexico southward, but has occurred casually in the eastern United States.

43 (—) **Calocitta colliei** (Vigors)

COLLIE MAGPIE-JAY

Synonym—*Pica bullocki*.

Status—"Woody portions of North California" (Audubon, Synopsis, 1839, p. 153). No doubt an inferential blunder based upon a bird mislabelled as from the "Columbia River". The species belongs to western Mexico.

44 (—) **Calocitta formosa formosa** (Swainson)

BULLOCK MAGPIE-JAY

Status—A specimen is in the collection of the Academy of Natural Sciences of Philadelphia labelled "California" (Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 442). "No doubt an error". The species is native to southwestern Mexico.

45 (—) **Psilorhinus morio morio** (Wagler)

BROWN JAY

Synonym—*Corvus morio*.

Status—A specimen stated to have been obtained at "San Francisco, California" (Eyedoux and Gervais, Voyage of the Favorite, v, 1839, p. 54). A specimen is listed by Baird (Pac. R. R. Rep., ix, 1858, p. 592) as from "San Diego, Cal". Both records are extremely doubtful. The species is native to northeastern Mexico.

46 (—) **Cissilopha beecheyi** (Vigors)

BEECHEY JAY

Synonyms—*Pica beecheyi*; *Cyanocitta beecheyi*; *Cyanurus beecheyi*; *Cyanocorax geoffroyi*.

Status—A species of western Mexico, originally described from "Monte-reale" (Vigors, Zool. Journ., iv, 1829, p. 353). Bonaparte (Conspectus Avium, 1, 1850, p. 378) added "California", and Baird (Stansbury's Expl. Salt Lake, 1853, p. 333) corrupted the type locality to "Monterey". Thus through apparent error the species was for a time attributed to California. There is in the collection of the Academy of Natural Sciences of Philadelphia a specimen labelled "California" (Stone, Proc. Acad. Nat. Sci. Phila., 1891, p. 444); "doubtless an error".

47 (487) **Corvus cryptoleucus** Couch

WHITE-NECKED RAVEN

Status—Of alleged occurrence in southern California: recorded as nesting at Fort Tejon (Bendire, Life Hist., II, 1895, p. 402); specimen, not now extant, said to have been identified from San Fernando Valley, Los Angeles County (J. Grinnell, Bds. Los Angeles Co., 1898, p. 32). Rumors of existence on the Mohave Desert are not found to be satisfactorily grounded. The species is plentiful in southeastern Arizona, thence east to western Texas and south into Mexico.

48 (—) **Trupialis militaris** (Linnaeus)

RED-BREASTED LARK

Synonym—*Sturnella militaris*.

Status—Specimen supposed to have been shot at Monterey (Prevost and Des Murs, Voyage of the Venus, 1855, p. 277), but more probably taken on the west coast of South America where the same expedition also touched. A specimen recorded as no. 4230, Smithsonian Institution, "was obtained in San Francisco by Mr. R. D. Cutts" from a collector who "asserted positively that it had been shot by him in San Francisco county" (Baird, Pac. R. R. Rep., ix, 1858, p. 534). Baird remarks: "Mr. Cutts may have been deceived by his informant". The species belongs to southern South America.

49 (16.3, hyp.) **Icterus icterus** (Linnaeus)

TROUPIAL

Status—Only one instance: Santa Barbara, April 30, 1911, a male taken (Bowles, Condor, XIII, 1911, p. 109). The specimen is now in the Bowles collection. Probably an escaped cage-bird. (See Willett, Pac. Coast Avif. no. 7, 1912, p. 112.) The species is native to northeastern South America.

50 (513a) **Megaquiscalus major macrourus** (Swainson)

GREAT-TAILED GRACKLE

Synonyms—*Quiscalus major*; Boat-tailed Grackle.

Status—According to Gambel (Proc. Acad. Nat. Sci. Phila., 1847, p. 203) this blackbird was occasionally seen in his day as far north as Upper California; Woodhouse makes a similar statement (Rep. Sitgreaves' Exp., 1853, p. 79). But both reports may have really related to areas south and east of the present confines of the state, or as far as California is concerned may have really pertained to the Brewer Blackbird. The species belongs to southern and eastern Mexico north to southern Texas.

51 (—) **Spinus yarrelli** (Audubon)

YARRELL GOLDFINCH

Synonyms—*Carduelis yarrelli*; *Chrysomitris yarrelli*.

Status—Described from a specimen thought to have come from "Upper California" (Audubon, Synopsis, 1839, p. 117). According to Baird (Pac. R. R. Rep., ix, 1858, p. 421) the type appeared "to have been kept for a time in a cage". The species is native to Brazil.

52 (—) **Spinus barbatus** (Molina)

STANLEY GOLDFINCH

Synonyms—*Carduelis stanleyi*; *Chrysomitris stanleyi*.

Status—Two specimens supposed to have come from "Upper California" (Audubon, Synopsis, 1839, p. 118; Baird, Pac. R. R. Rep., ix, 1858, p. 420); the specimens showed evidence of having been kept in a cage (Baird, *loc. cit.*). A species of extreme southern South America.

53 (—) **Fringilla coelebs** Linnaeus

EUROPEAN CHAFFINCH

Status—Two instances of occurrence: specimen shot by Joseph Clemens at Monterey, March 4, 1905 (J. Grinnell, Condor, viii, 1906, p. 58); and one seen in Berkeley, May 14, 1908 (T. S. Palmer, Condor, x, 1908, p. 238). Each had probably been purposely liberated, or else had escaped from some aviary. The species is palearctic.

54 (534) **Plectrophenax nivalis nivalis** (Linnaeus)

SNOW BUNTING

Synonyms—*Passerina nivalis*; Snowflake.

Status—Known only from the statement by Belding (Condor, v, 1903, p. 19) that a flock visited Marysville in the winter of 1872-73. No specimen was preserved. The species is of Arctic breeding range, coming south irregularly in winter to the northern tier of states. I know of no record nearer California than Camp Harney, Harney County, eastern Oregon.

55 (593) **Cardinalis cardinalis cardinalis** (Linnaeus)

EASTERN CARDINAL

Status—Introduced "from Missouri", in 1880, near Galt, Sacramento County, and "heard from" for some years after (Belding, Land Bds. Pac. Dist., 1890, p. 175). A specimen of "*Cardinalis igneus*", or "Cape Cardinal", shot at Haywards (Emerson, Orn. & Ool., vii, 1882, p. 119) proved to have been an escaped cage-bird, as Mr. Emerson subsequently informed me. Repeated rumors of Cardinals seen around Los Angeles and elsewhere doubtless pertain to birds either purposely liberated or escaped from confinement. The species has apparently never become well established within the state.

**56 (594)                    Pyrrhuloxia sinuata sinuata (Bonaparte)**

## ARIZONA PYRRHULOXIA

Status—Possibly a rare visitant to extreme southeastern corner of the state: Fort Yuma (Cones, Proc. Acad. Nat. Sci. Phila., 1866, p. 90); specimen from "California" (Sharpe, Cat. Bds. British Mus., XII, 1888, p. 158). In each case the specimen obtained is not likely to have been secured within the present state limits. The species is more or less common in southern Arizona.

**57 (18.1, hyp.)                    Piranga rubriceps Gray**

## GRAY Tanager

Status—One instance: specimen claimed to have been shot by W. G. Blunt "about 1871" at Dos Pueblos (=Naples), Santa Barbara County (W. E. Bryant, Auk, IV, 1887, p. 78). I agree with Ridgway (Bds. N. and Mid. Amer., II, 1902, p. 776) who says: "The identification of the specimen on which the record is based is undoubtedly correct; but even granting no mistake has been made as to the specimen having actually been taken in California, the occurrence must have been purely fortuitous, most likely an escape from captivity, and the species has no claim to a place in the North American fauna." The species is South American.

**58 (—)                                Lanius algeriensis Lesson**

## ALGERIAN SHRIKE

Synonyms—*Collurio elegans*; *Collurio ludovicianus robustus*, part; *Lanius elegans*, part; *Lanius robustus*; White-winged Shrike.

Status—Specimen supposed to have been obtained by Gambel in "California" (Cassin, Proc. Acad. Nat. Sci. Phila., 1857, p. 213), and so recorded in many works subsequently; an Asiatic species (see Ridgway, Bds. N. and Mid. Amer., III, 1904, pp. 236, 237).

**59 (664)                                Dendroica graciae Baird**

## GRACE WARBLER

Status—A male specimen recorded as shot near Santa Paula, Ventura County, May 3, 1881 (Evermann, Auk, III, 1886, p. 185). I have elicited from Dr. B. W. Evermann in conversation the information that this specimen was destroyed by fire along with the rest of his California collection of birds and eggs. The possibility was suggested that the bird might have been a Townsend Warbler, but memory failed to provide any decisive clue. At any rate it would seem better for the present to hold this record in abeyance. The species occurs regularly in the mountains of central Arizona.

**60 (705)                                Toxostoma rufum (Linnaeus)**

## BROWN THRASHER

Synonym—*Harporhynchus rufus*.

Status—A single doubtful record: "Dr. Cooper states that in September, 1870, he found a straggler at Clear Lake, close to the lower town" [=Lower

Lake, Lake County?] (Baird, Brewer and Ridgway, Hist. N. Amer. Bds., III, 1874, p. 500). "Unfortunately, it [the bird] was not secured". The species belongs to the eastern United States, ranging west to Wyoming and Colorado, casually to Arizona.

61 (762)

**Planesticus confinis** (Baird)

SAN LUCAS ROBIN

Synonyms—*Merula confinis*; Cape Robin.

Status—A female robin, showing very pale coloration, and taken at Haywards, "January 2, 1880" (really January 7, 1882), was recorded under the above name (Emerson, Zoe, I, 1890, p. 46). For many years this record stood in literature; but a recent critical examination showed the bird to be in all probability merely an individual extreme of *Planesticus m. propinquus* (see J. Grinnell, Condor, x, 1908, p. 238). The range of *Planesticus confinis* is limited to the Cape region of Lower California.





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PACIFIC COAST AVIFAUNA  
NUMBER 12

BIRDS OF THE ISLANDS OFF THE COAST  
OF SOUTHERN CALIFORNIA

BY  
ALFRED BRAZIER HOWELL



HOLLYWOOD, CALIFORNIA

PUBLISHED BY THE CLUB

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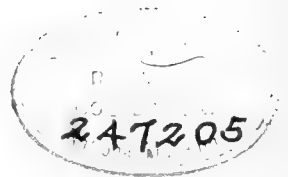
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Edited by  
JOSEPH GRINNELL  
and  
HARRY S. SWARTH  
at the  
*Museum of Vertebrate Zoology*  
*University of California*

#### NOTE

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## INTRODUCTION

The need for a publication of some kind embracing all possible information in regard to the avifauna of the islands off the coast of southern California first came to my attention in 1908. At that time I began compiling lists of the birds of each of the islands, for my own use only; but, at the suggestion of a few friends, I began four years ago to get these notes into shape for publication. This was undertaken, not because I have worked the islands more thoroughly than anyone else, which is not the case, but because of the special interest I have in the region.

The present contribution was completed and delivered to the Editors in October, 1915, but for various reasons the Club has been long delayed in its publication. During this delay, I have taken the opportunity of bringing the paper up to date, with the beginning of 1917.

The territory covered in the present paper consists of the Santa Barbara Islands as properly restricted: Anacapa, Santa Cruz, Santa Rosa and San Miguel, with certain outlying rocks; the more southern group, popularly included under the same general term: Santa Barbara, San Nicolas, Santa Catalina, and San Clemente; and Los Coronados Islands. The last mentioned group does not lie off the coast of southern California, being Mexican territory and pertaining to Lower California, but is included in this report because of location nearby, and because of faunal similarity to the other islands named.

I regret that I have been unable to spend more time myself in field work—some weeks, at least, on each island. There seems no prospect of this in the near future, and further delay of publication for this reason seems unwise. As a matter of fact, there has been comparatively little work done upon these islands by anybody, and a visit of several weeks to any one of them is almost sure to add one or more new migrants or winter visitants to the list.

The scope of this paper, as originally planned for my own use, has necessarily been amplified. I have endeavored to cite every publication relating to the island avifauna that could be deemed of importance, and to gather all unpublished notes relating to the subject, though I suppose it is useless to hope that I have uncovered every one of either. As a matter of general convenience, the nomenclature and order of the third edition of the American Ornithologists' Union *Check-List* (1910) has been followed, except where modified by the one supplement since published. There are several island races belonging to groups which have lately been monographed, and which have been accorded standings different from those in the *Check-List*. In such cases, while I personally accept, for the most part, the opinions of the men who have done this work, I have in

this publication been content to state their findings in the text, without changing the formal headings under which these species are placed. This appeared to be the best plan, in the interests of convenience and uniformity.

In the treatment of records objection may be made that some unconfirmed ones are included, while others, at first glance apparently just as trustworthy, are relegated to the hypothetical list. I have endeavored to act conservatively in this; but one need not be as strict in such matters in the case of a local paper as in a state list, and I have therefore accepted sight records, by competent observers, of birds not too hard to identify in the field and belonging to such species as one might expect to find upon the islands. On the other hand, in the case of single, sight records, of birds that are especially hard to differentiate in life from closely allied forms, relegation to the hypothetical list has been the only course open to me. As regards another type of record: We know that Dr. J. G. Cooper was a most capable and scrupulous ornithologist; but in his time men did not keep as exact notes, nor label their specimens with as much care, as they now do. I find that several of Cooper's island skins were wrongly identified, while there seem to be a number of mistakes and inconsistencies in his published notes. Therefore, any unusual records of his, unless verified, have been placed in the hypothetical list.

In the cases of birds that do not breed upon the islands, it is often difficult to judge as to their numbers and the regularity of their visits. Therefore, instead of merely citing a few winter records without any explanation, I have stated, when there are instances of the occurrences of a species upon more than one island, the *probable* numbers in which it is found, judging from its relative abundance on the nearby mainland and the apparent likelihood of its occurring regularly upon the islands. In general I have endeavored, besides giving manner of occurrence, to present any little-known habits that may be of interest, especially those relating to species or subspecies which are confined to the islands.

Generally speaking, it is a bad plan in any science to advance fanciful theories, impossible to prove; for a science should be built up of facts. With some things, however, as for example, with bird migration, it is impossible to make absolute statements as to cause and effect, and in such cases it seems justifiable to advance theories, which, even though eventually shown to be incorrect, do good by promoting further discussion. With such an idea I have submitted several theories in the following chapter on "Problems presented by the island avifauna," the resulting conclusions, though not considered as absolutely proven, having been reached through careful consideration of the known facts. While not submitted as final, I trust that they may prove of assistance in building up a further understanding of our insular bird life.

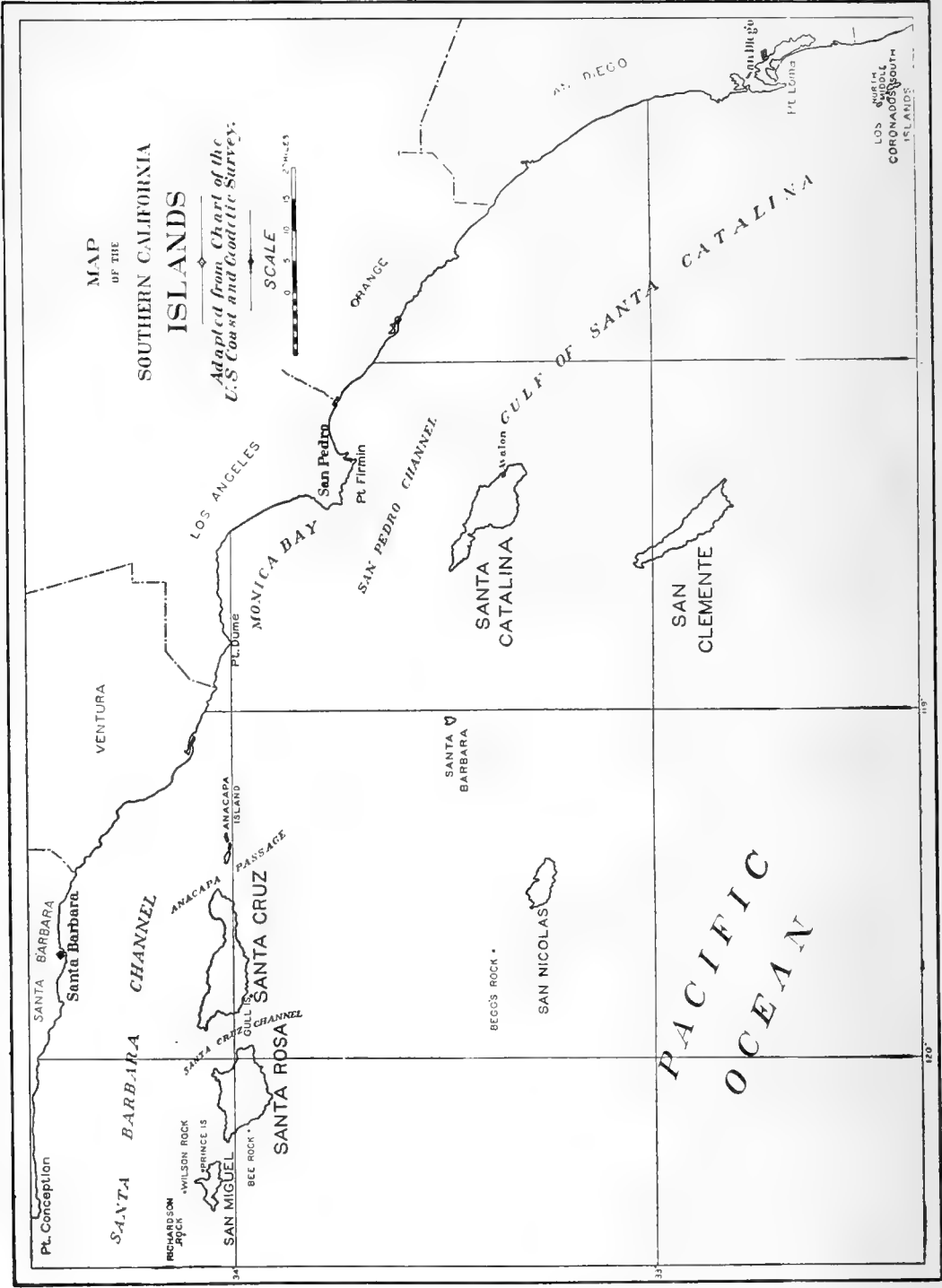


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During the preparation of the following paper I have often called upon fellow members of the Cooper Ornithological Club for aid, which, though sometimes incurring trouble on their part, has at all times been most cheerfully and promptly rendered. For furnishing me with important unpublished notes in regard to the island birds, I am very greatly indebted to the following gentlemen: W. L. Dawson, D. R. Dickey, O. W. Howard, L. M. Huey, C. C. Lamb, J. Mailliard, C. W. Richmond and G. Willett; and for supplying much needed information of various kinds, to C. B. Linton, H. C. Oberholser, A. van Rossem, and H. S. Swarth, the latter having been of great help to me in many ways. I am under obligation to F. S. Daggett for allowing me access to the collections in the Museum of History, Science and Art, of Los Angeles; to J. E. Thayer for the loan of specimens and for notes; to the Bureau of Biological Survey, through E. W. Nelson, for the loan of specimens; to the Museum of Vertebrate Zoology of the University of California for access to its collections, and for the loan of specimens; and to W. L. Chambers for the unrestricted use of his splendid library. Finally, to Dr. Joseph Grinnell I am under a lasting debt of gratitude for encouragement, advice on all sorts of subjects, and the use of his unpublished notes. The accompanying map was drawn by C. L. Moody, and the technical descriptions of the islands were taken in part from the Pacific Coast Pilots of the U. S. Coast and Geodetic Survey.

A. BRAZIER HOWELL.

*Covina, California,*  
*January 10, 1917.*



MAP OF THE ISLANDS OFF THE COAST OF SOUTHERN CALIFORNIA

## DESCRIPTIONS OF THE ISLANDS

According to the Pacific Coast Pilot, the Santa Barbara group of islands consists of Anacapa, Santa Cruz, Santa Rosa and San Miguel, but in popular parlance, all the islands treated in this report, with the exception of Los Coronados, constitute the Santa Barbara group.

Very little is known of the geology of these islands, and although one can frequently find statements in the older scientific books and reports that briefly treat of their geological character, competent geologists of the present day are reluctant to render an opinion in regard to their formation. It is a pretty well-accepted theory, however, that they are the protruding peaks of an otherwise submerged mountain chain, which was at one time integral with the mainland, probably during the Tertiary or Quaternary period.

### LOS CORONADOS ISLANDS

These are four in number. Their northernmost point is three miles within the Mexican border, and they are seven miles from the nearest part of the mainland, being in the neighborhood of twenty-five miles from San Diego. The group extends about five miles in a northwest and southeast direction. The southernmost and largest island is about two miles long and half a mile wide, rising near the southern end to a height of 672 feet. The two central islands, lying, respectively, one half and three quarters of a mile westward, are much smaller, the lesser of the two being hardly more than a great rock. Their heights are 251 and 101 feet, respectively. They were formerly a favorite resort of the sea elephant, and the west side of the larger one is now the rendezvous of a herd of leopard, or harbor, seals. The fourth island, second in size, lies two and a half miles to the northwestward of south island, and is about a mile long, a quarter of a mile wide, and 467 feet high. There is a large colony of seals on the seaward side. A species of *Peromyscus* is the only land mammal known to occur upon it. The islands are very steep, and, as there is no water, they are comparatively barren, there being only stunted bushes, iceplant and a few patches of opuntia and "cane" cactus. Lizards of several forms are numerous, and on south island there are many rattlesnakes, centipedes and tarantulas, besides several domestic cats, run wild. A good place to camp is at the cove near the north end of the south island, and another, at a little indentation of the shore near the middle of the north island. Indeed these are the only two spots where it is possible to land in rough weather. The islands are uninhabited.

## SAN CLEMENTE ISLAND

San Clemente Island is 1964 feet high, and its southeastern end lies sixty miles from Point Loma, near San Diego, from which it is visible on a clear day. It is eighteen miles long in a northwest and southeast direction, with an average width of two and a half miles, the broader and higher part of the island being near the southeast end. The northeast side is straight and bold, with rocky, precipitous cliffs, but the southwest side is lower and more broken. There is rather good grazing here, and large flocks of sheep are kept at this point. Near the southeast end, at Mosquito Harbor, there is water and a number of trees, but the northwest part is devoid of moisture for the greater part of the year, and there are no trees and very little brush. Back from the coast the land is rolling, and near the northwest end are two fresh-water ponds, which are dry during the summer. A *Peromyscus* and a fox occur, and in addition numerous house cats. The San Clemente Wool Company have several ranch houses on the island and it is necessary to obtain permission before staying and hunting in the locality. There is no public boat service.

## SAN NICOLAS ISLAND

This island lies fifty-three miles from the nearest part of the mainland, forty-three miles westward from San Clemente, and twenty-four from Santa Barbara Island. It is eight miles long in an east and west direction, with an average width of three miles, and is 890 feet high. Most of the island is very sandy, with no vegetation to speak of, but around the lower end there are a few patches of thorn, cactus and other scrub. Several alkaline springs occur, but the island is, nevertheless, very barren indeed, and animal life is correspondingly scarce. The high central mesa is the home of many sheep, to care for which there is a single herder. Very few boats visit this island.

## SANTA CATALINA ISLAND

Santa Catalina Island lies about twenty miles southward from San Pedro. It is eighteen and a half miles long in an east and west direction, with a greatest width of seven miles near the east end; the highest peak, 2109 feet, lies about the middle of the island, near Avalon. The latter is a famous fishing ground and resort, with a resident population of several hundred. It is two and a half miles from the east end. About six miles from the western end is a deep cut that almost divides the island. Catalina is rugged and mountainous, with steep, precipitous shores, intersected occasionally by deep gulches and small valleys; good water occurs in a number of places. For the most part it is covered with brush and scrub oak, with some fair-sized trees in the canyons. The uplands and hill-sides, however, are often bare, except for grass. Two species of mice, a ground squirrel, and a fox occur here, but the latter is almost extinct because of contracting "scabies" from the sheep, which causes them to become blind. An excursion boat makes a daily run from San Pedro to Avalon.

## SANTA BARBARA ISLAND

Santa Barbara Island lies twenty-one miles in a general westerly direction from Catalina. It is one and a half miles long, with a maximum width of one mile, the highest point being 547 feet. The shores are bold and precipitous, with but one regular landing place, even that being impossible to negotiate in very rough weather. A rocky islet 257 feet high is situated a third of a mile southwestward, and a smaller one with a height of 125 feet lies two hundred yards to the westward. Except for two hills, the top is a smooth mesa with a heavy growth of grass and weeds. In certain parts there are scrubby bushes and patches of cactus, with an abundance of iceplant. There is no water, and no one lives upon the island. House cats have become established there.

## ANACAPA ISLAND

This is the easternmost one of the northern group, and consists of three islets separated by narrow passages, the eastward channel being navigable for small boats at high tide only. The eastern point lies ten and three quarter miles from the nearest mainland. The islands extend four and a half miles in a general east and west direction. The eastern extremity of the group is a large arched rock, but the true eastern island is a mile long, a quarter of a mile wide, and 260 feet high. It is the lowest of the group and is rather level on top. The middle one is nearly one and three quarters miles long, three quarters of a mile wide, and 320 feet high. The western and largest island is two miles long, three quarters of a mile wide, and rises to a peak 980 feet high. The shores are perpendicular and filled with numerous caves. This is a most beautiful island, especially in the spring, when it is covered with verdure and wild flowers.

## SANTA CRUZ ISLAND

Santa Cruz Island is the most beautiful and the largest island of all, being twenty-one miles long, in an east and west direction, with an average width of five miles, and a peak 2407 feet high. The eastern part is very irregular, barren and almost destitute of water. The western part, however, is, in certain localities, especially near Prisoners Harbor, plentifully besprinkled with forests of the Santa Cruz pine, which, in the higher parts, gives a distinctly boreal impression. At the lower edge of the pines are oaks and considerable grass land. The larger canyons are well wooded with a variety of deciduous trees, some of them quite large, and there is good water in many of them. Low cliffs skirt the shore. About three quarters of a mile southward from the southern end, is Gull Islet, 150 feet high, it being the largest and outermost of a group of small rocky islets a quarter of a mile in extent. There are two ranches upon the island, and a small hotel which is visited more or less regularly by an excursion boat from the city of Santa Barbara. Good camping spots can be found almost anywhere. There are many sheep on the island, a few pigs and house cats run wild, and there are some foxes, though the latter are not as plentiful as formerly.

## SANTA ROSA ISLAND

Santa Rosa Island lies five miles westward from Santa Cruz, and is fifteen miles long, with a maximum width of ten miles. The shores are bold, high and rocky; the highest point is 1562 feet, near the middle of the island. Water is plentiful, and the island is covered with vegetation, but there are no large trees. There are sheep upon the island and several people live there, but it is hard to obtain permission to stay upon it.

## SAN MIGUEL ISLAND

This is the westernmost island of the group, and is the most difficult to approach. Its western point lies about twenty-five miles south of the nearest mainland, and its eastern point three miles westward from Santa Rosa. The island is irregular in shape, seven and a half miles long in an east and west direction, and with an average width of two miles. The highest points, 860 and 850 feet respectively, are about the middle of the island near the southern shore. There is much long grass but no trees, and in the western part there are extensive sand dunes. This sand is constantly shifting and encroaching on the remainder of the island. The shores are bold, broken and rocky, with a few short stretches of beach, the southern shore being more precipitous than the northern. Several fairly good landing places occur, and there is some good water. Prince Islet, 303 feet high, lies a half mile off Cuyler's Harbor, which is about midway on the northern coast. It is a breeding place for many sea-fowl.

Begg's, Wilson, and Richardson rocks are all three of small extent, and are respectively 40, 15, and 50 feet high. As far as I know, they have been visited by no ornithologist. A few gulls and cormorants may make their homes upon them, but it is unlikely that they hold anything of greater interest.

## PROBLEMS PRESENTED BY THE ISLAND AVIFAUNA

The climate of the islands, taken as a whole, is more equable and humid than that of the mainland coastal plain nearby. Although rainfall records are lacking, it is common belief that even the islands nearest shore receive slightly less rain than does the adjacent mainland. This is to be expected, for the nearer one approaches to the mountains, the heavier is the annual rainfall. Those islands farthest from the coast have a still smaller precipitation, and are correspondingly more barren. The increased humidity, despite the lesser rainfall, is caused by the modifying influences of the surrounding sea and frequent fogs. The climate of any one of the larger islands shows much variation, according to exposure. The seaward sides are subjected to dense fogs and heavy winds, tending to raise the average temperature in winter and lower it in summer. The comparatively sheltered landward sides are much warmer during the summer months, occasionally presenting an aspect that is decidedly Lower Sonoran, though in reality, the Upper Sonoran is the lowest, and by far the most prevalent zone that occurs. In winter the temperature is higher than it is at the same altitude on the nearby mainland coast, due again to the sea; frosts are unknown, except possibly on the higher parts of the islands.

On some islands there are high, grassy ridges and tablelands, in strong contrast to the wooded canyons, and on Santa Cruz, pine forests, which, while probably of a Transition nature, present features decidedly boreal in appearance. Although certain characteristics of other parts of this and other islands impress one as being in a higher zone than Upper Sonoran, I am of the opinion that these pine forests are the only spots in the region that will bear out such an impression. Taken as a whole, the climate of the islands probably has a lower mean temperature than that of the adjacent coastal plain, which would tend to give them a climate somewhat approaching that of the coast farther north, though not with any conspicuous effect upon the flora and fauna.

The Santa Barbara Island Faunal Area, as a division, would seem to be considered such more because of convenience and its geographical position, than because of any general uniformity or peculiarity of animal or plant life. Geographically it is segregated from the rest of the state, and the distinct insular forms afford an apparent reason for terming it a separate faunal area; in reality it is made up of an infusion from several of the other California divisions. In the main, it is clearly San Diegan, but it also contains elements of the Sierran Area, and to a greater extent is suggestive of the more humid northern coast district, not so much of the Humid Coast Faunal Area as, say, of the San Francisco Bay Region.

Colonization of the islands by birds may have been brought about in two, or possibly in three, ways. First, through those species which originally lived in the territory at the time when the islands were part of the mainland; these would seem to constitute the bulk of the species now resident there. Second, through such instances as where a pair or more of a species had wandered from the mainland during fogs, or, having been blown to an island by storms, settled there permanently. This theory, has, I believe, been accepted as an explanation of the presence of some few resident birds on other islands. A third theory, which I consider rather improbable, is that a few individuals of a species regularly or occasionally visiting the islands in winter or during migration, have remained to breed.

Conditions bearing upon the bird life of the islands differs from those on the mainland in a variety of ways, as one would expect. Here we have the survival of the fittest carried to the extremest degree. If a species cannot readily adapt itself to changed conditions, it is unable to seek more congenial surroundings, as on most parts of the continent, but must get along where it is, or perish. If structural adjustments are possible, insular forms arise. Food on the islands must differ, in the case of many birds, from that available on the mainland; but to just what extent, it is impossible to say. Notable cases are those of the insular Mockingbird and House Finch, which feed on the fruit of the opuntia cactus until their whole fronts are stained by the red juice. This may enter into the menu of their mainland relatives as well, but certainly not to a like extent.

As for extreme change of habits, one has but to visit Santa Barbara Island to be impressed by the case of the Song Sparrow. This island is rather barren and without water; so, instead of a shady retreat among the dense brush of a damp ravine, we see the little fellows out-larking the Horned Larks themselves, among the iceplant and short grass of the mesa. The House Finches have taken to building in pockets of the conglomerate cliffs as well as in the cactus, and the Dusky Warbler, instead of building almost invariably on the ground, as does the Lutescent, prefers a vine, shrub, or even the branches of a tree fifteen feet above the ground.

Different exposures would seem to give more widely varying results than do similar situations upon the mainland, judging by my experiences on Todos Santos Island, near Ensenada, Lower California. This island, of course, is beyond the range of the present paper, but it is very similar to the smaller of the Santa Barbara Islands, and is comparable in climate as well as otherwise. From April 15 to 20, 1910, I was on Todos Santos, and found that at the northern end the San Clemente House Finches were far advanced in nesting (Howell, *Condor*, xiv, 1912, p. 190). I found only two pairs having eggs far advanced in incubation, while a dozen were located with young in all stages, some of which were ready to leave the nests. On the southern end, fresh eggs and incomplete sets was the rule, no young at all being noted. This was an unusual state of affairs. The island is a mile and a quarter long and the northern end is windy and fog drenched, while the southern part is comparatively warm and sheltered. I am unable to offer any explanation of this. Certainly the food supply could not have had anything to do with it in such a small area.



Judging by the data in hand, the whole life cycle of the smaller insular subspecies and species, on the more southern islands at least, is shifted a month or six weeks earlier than that of the corresponding mainland forms. On San Clemente Island in 1915, we collected during the last week in March juvenile Shrikes, Song Sparrows, Horned Larks, House Finches and San Clemente Wrens that were strong on the wing and with well grown tails. These were not isolated cases, for after the first day seen, the youngsters at once became common. On April 9 I shot a young Song Sparrow that had almost completed the post-juvinal molt. On the same date, on San Clemente, however, the larger birds, such as the Bald Eagle and the Raven, were not farther advanced in breeding operations than one would expect. On Todos Santos Island, April 16, 1910, a pair of Barn Owls had a nest containing a chick two-thirds grown, while during the first part of the month, on the mainland, I examined two occupied nests which as yet held no eggs, though of course Barn Owls sometimes do lay before this date. As previously mentioned, there were young House Finches there at the same time that were ready to leave the nest, but on the mainland there is not much use looking for Linnets' eggs before the last of March.

This early nesting may be due to obscure and unrecognized causes, but it is partly influenced by the mild winters, and to a greater extent, by the abundant food supply. In regard to the latter, it is hard to make comparisons, for on parts of the mainland where trees occur, there are large numbers of insects in the tops of these, while on an island such as San Clemente they are under one's feet and more readily noticed. Be that as it may, on some of the islands insects are everywhere, and as there is no frost to reduce their numbers, the birds do not have to wait in the spring until the presence of a new generation of bugs enables them to begin nesting operations.

The molt, also, takes place earlier than is usual upon the mainland, and birds in fresh plumage may be taken in early August, if not before. March specimens are sometimes as ragged and faded as mainland ones taken in late June, and by the time the new feathers begin to grow some of the birds are almost naked.

Small birds on the islands are particularly numerous, due partly to the abundant food supply, in large measure to the absence of many predaceous forms, and to the excellent cover afforded by the patches of cactus and thorny scrub with which the islands abound. Here they usually nest and roost, secure from everything except, in the case of the smaller ones, an occasional marauding mouse.

The birds of the Santa Barbara Islands have not lost any of their fear of man, as have, for instance, those of the Galapagos Archipelago. The aborigines inhabited some of the islands for a long time, and white men have been visiting them for many years. On the Coronados I have had Song Sparrows hopping about within two feet of my head, but, on the other hand, the Island Shrike is the most wary land bird for its size that I have ever encountered.

The formation of insular races is so shrouded in mystery that it is unsafe to speculate as to causes and effects save in a most general way. We can see that climate has played an important part in this. As mentioned previously, the gen-

eral island climate has a slightly northern or more humid tendency, and this has its expected effect in that the majority of forms are slightly darker than are their relatives on the adjacent mainland. In connection with the effect of climate on the birds as they were and as they now are, it is interesting to speculate in regard to a number of suggestions and theories set forth. The previous integrity of the islands and continent, and their subsequent separation at an uncertain date; the effects of the encroaching ice cap in glacial times; some of the tendencies of Pleistocene times as indicated by the avifauna of the Rancho La Brea beds, and the finding there of conifers which do not now occur in the contiguous territory: all this makes interesting food for thought and speculation, but is not closely enough related nor well enough understood for me to dare to set down any conclusions. Each of these changing factors has undoubtedly had an influence, however.

Both food and the quest of it have probably been contributing factors in the forming of island races. It might readily be that in the course of time an arboreal form inhabiting an island that had few trees and few predaceous forms, would show a shortening of the wings, and corresponding increase in the size of the lower extremities. Whether or not, this has had any effect, it is a fact that practically all the island subspecies whose feet differ from the forms of the mainland, have those parts heavier, but without the correlated shortening of the wing. Habits, as previously illustrated in the Song Sparrows of Santa Barbara Island, may have an active influence in this connection, and the effects of inbreeding must also be considered. It is a well known fact among breeders of domestic animals that continual inbreeding will result in loss of vigor, lessening of size, and accentuation of any defective points; and that it will help to bring out latent atavistic tendencies. This surely does not concern us in the majority of instances; but where a stray pair of a species has reached an island and remained to breed, I believe that the resultant inbreeding would have a strong tendency to form characters differing from the original type.

The island species and subspecies, including those that have been deemed unworthy of recognition by the A. O. U. Committee, number nineteen. When differing at all in dimensions from their relatives of the mainland, it is in the following respects. Wing: in three races shorter and in two longer. Tail: in one shorter and in two longer. Bill: in two smaller and in ten larger. Tarsus: in one smaller and in seven heavier. Toe: in one shorter and in seven heavier or longer. Eleven of the races show darker markings and three show lighter markings. Taking a composite of the lot, we find that the influences of this group of islands tend to produce a bird of greater total length, with larger, heavier bill, and heavier tarsus and foot. The length of wing and tail remains about the same, and coloration becomes darker, with brighter colors and heavier streaking.

There seems to be a well used line of migration through the islands. Practically none of the passerine transients occur in large numbers, but the seasonal waves of migration are well marked. There are several records from these and the Farallon Islands, of birds that are decidedly rare in any part of the far west. Winter visitants are abundant, but the species which are absent during the winter, and return to the islands for the purpose of breeding, number only five.

## GENERAL ACCOUNTS OF THE BIRDS

1. **Aechmophorus occidentalis** (Lawrence)

## WESTERN GREBE

*Aechmophorus occidentalis* (1) Howell and van Rossem, Condor, XIII, 1911, p. 209.

Probably a regular and not uncommon winter visitant. C. B. Linton (MS) has noted this species at different times during the winter months in the vicinity of San Clemente and Santa Barbara islands. A. van Rossem (1) noted a single bird at Santa Cruz Island the latter part of April, 1911.

2. **Colymbus auritus** Linnaeus

## HORNED GREBE

*Colymbus auritus* (1) Dawson, Condor, XVII, 1915, p. 204.

W. L. Dawson (1, MS) saw and photographed two of these birds at Prisoner's Harbor, Santa Cruz Island, April 22, 1915. He says that in the photographs the species is recognizable, as the birds were approaching high nuptial plumage.

3. **Colymbus nigricollis californicus** (Heermann)

## EARED GREBE

*Colymbus nigricollis californicus* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 5.

Am[erican]. Eared Grebe (2) Grinnell, Bull. Cooper Orn. Club, I, 1899, p. 19.

*Colymbus californicus* (3) Linton, Condor, X, 1908, p. 82. (4) Linton, Condor, X, 1908, p. 125.

Common in winter about all the islands. C. B. Linton (MS) has found the species at San Nicolas in winter, and (3) recorded large flocks near the north end of San Clemente from December to March, 1907. He also reports (4) one specimen taken at Santa Cruz during November of the same year. During the latter half of April, 1911, A. van Rossem and I found the birds to be rather common in the latter locality. One taken April 25 was in the midst of the spring molt. J. Grinnell (1) found them to be numerous at Catalina during the last week in December, 1897, and I have noted them there repeatedly throughout April.

4. **Podilymbus podiceps** (Linnaeus)

## PIED-BILLED GREBE

The only record of this species from the islands seems to be that of a female taken by H. Wright at San Clemente, August 26, 1908, and now in my collection.

5. **Gavia immer** (Brünnich)

## LOON

*Gavia immer* (1) Dawson, Condor, XVII, 1915, p. 203.

While at Santa Cruz Island during April, 1915, W. L. Dawson (1) saw several of these birds at close range. This species undoubtedly occurs about the isl-

ands in numbers during the winter, as it does along the mainland, but unless especially hunted for, loons are most often seen at long range. As the several forms are hard to differentiate under such circumstances, common loons may have been noted about the islands and ascribed to the more numerous *pacifica*.

## 6. *Gavia pacifica* (Lawrence)

### PACIFIC LOON

*Urinator pacificus* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 5.

Pacific Loon (2) Grinnell, Bull. Cooper Orn. Club, I, 1899, p. 19.

*Gavia pacifica* (3) Linton, Condor, x, 1908, p. 125. (4) Linton, Condor, XI, 1909, p. 193.

(5) Willett, Pac. Coast Avif., 7, 1912, p. 10. (6) Dawson, Condor, XVII, 1915, p. 205.

Abundant about the islands during migration, and not uncommon in winter. C. B. Linton (4) reports having seen a few around San Clemente during the winter of 1908, and J. Grinnell (1) took two specimens at Catalina during the last week in December, 1907. A. van Rossem and I found them to be present at Santa Cruz Island during the last half of April, 1911.

G. Willett (5) states that they arrive in September and leave in May, but the bulk of the spring migration occurs from the middle to the last of April. The main line of travel seems to be about twenty miles off shore, though in places it is a trifle nearer. During a favorable morning I have watched thousands of what must have been this species flying north in detached companies of from half a dozen to thirty individuals, and all following exactly the same line of flight. At this time the birds like to feed in the little coves along the shores of the islands, to which they are doubtless attracted by the spawning smelt. They are fond of fishing in company with cormorants, and during the heat of the day, mixed flocks of these several species may often be seen sleeping or playing a hundred yards beyond the surf.

## 7. *Gavia stellata* (Pontoppidan)

### RED-THROATED LOON

*Gavia stellata* (1) Dawson, Condor, XVII, 1915, p. 203.

W. L. Dawson (1) states that during most of his stay on Santa Cruz Island, April 3 to 22, 1915, there was a single individual of this species usually to be found in the vicinity of Prisoner's Harbor. While it is hard to distinguish between this form and *pacifica* except at close range, there is every indication that *stellata* is a regular and not rare winter visitant to the islands.

## 8. *Lunda cirrhata* (Pallas)

### TUFTED PUFFIN

*Lunda cirrhata* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 278. (2) Streater, Proc. Sta.

Barbara Soc. Nat. Hist., I, 1887, p. 23. (3) Streater, Orn. & Ool. XIII, 1888, p. 53.

(4) Grinnell, Pasadena Acad. Sci., I, 1897, p. 22. (5) Grinnell, Pasadena Acad. Sci.,

II, 1898, p. 6. (6) Grinnell, Pac. Coast Avif., 3, 1902, p. 10. (7) Willett, Condor, XII,

1910, p. 172. (8) A. O. U. Check-list, 3d ed., 1910, p. 25. (9) Howell and van Ros-

sem, Condor, XIII, 1911, p. 209. (10) Willett, Pac. Coast Avif., 7, 1912, p. 10. (11)

Wright and Snyder, Condor, xv, 1913, p. 87. (12) Grinnell, Pac. Coast Avif., 11, 1915, p. 17.

*L[unda]. cirrata* (13) Coues, Key N. Am. Birds, 5th ed., 1903, p. 1066.

Tufted Puffin (14) Willett, Condor, xii, 1910, p. 170.

Common resident about the northern islands, occurring farther south in winter. C. B. Linton and G. Willett (10) each saw a bird near San Nicolas in May, 1910, and on June 23, 1911. The latter date would indicate that the birds possibly breed in the vicinity, but I think this is doubtful. I saw them near an inaccessible cliff on Catalina in April, 1911, but I hardly think it likely that they nest there, as they had not before been reported from this, probably the most often visited island of the group, during the breeding season.

Eggs have not been taken on Santa Barbara Island, to my knowledge, but in April I have found burrows there that undoubtedly belonged to this species. H. Wright (11) records what were probably the same burrows, July 4, 1912, and the fact that he saw five birds in the vicinity. On Anacapa the same writer found the birds to be quite numerous near the east end, but very few nests were accessible. Those examined held either young or egg shells, July 5. At the same place D. R. Dickey (*MS*), in 1913, noted a number of pairs going to and from the cliffs, but examined no nests.

A. van Rossem and I found the birds to be fairly common at Santa Cruz Island during April, 1911, and the fishermen told us that they breed regularly near the north end of the island. Although several writers give this bird as a common resident there, definite breeding records from the locality seem to be lacking, as also from Santa Rosa.

At San Miguel a large colony makes its home on Prince Islet. J. S. Appleton and H. C. Burt (10) took fresh eggs there June 6, 1906, while H. Wright (11) found young from a few days to several weeks old, July 10, 1912.

## 9. *Cerorhinca monocerata* (Pallas)

### RHINOCEROS AUKLET

*Cerorhyncha monocerata* (1) Baird, Brewer and Ridgway, Water Birds N. Am., ii, 1884, p. 522. (2) Ogilvie-Grant, Cat. Birds Brit. Mus., xxvi, 1898, p. 611.

*Cerorhinca monocerata* (3) Grinnell, Pasadena Acad. Sci., ii, 1898, p. 6. (4) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 13. (5) Linton, Condor, x, 1908, p. 125.

(6) Linton, Condor, xi, 1909, p. 193. (7) Willett, Pac. Coast Avif., 7, 1912, p. 10.

Rhinoceros Auklet (8) Grinnell, Bull. Cooper Orn. Club, 1, 1899, p. 18.

Common in winter near all the islands. In June, 1913, on one of the Coronados, I found the dessicated remains of a Rhinoceros Auklet which apparently had been partly eaten by a Duck Hawk the winter before. C. B. Linton (6) took two specimens at San Clemente during the winter of 1908, and J. Grinnell (3, 8) reported the species as especially abundant at Catalina during December, 1897, he having secured ten specimens on the 29th. He states that they were particularly wary, swimming under water for three hundred yards or more when pursued.

Dr. Heermann (1) thought that they burrowed on Santa Barbara Island,

but what he found were probably the holes of the puffins; he saw an Auklet fly ashore with a fish in its mouth, and plunge into a hole. Of course these birds *may* have nested on Santa Barbara many years ago, and since become extirpated. I am inclined to think that Heermann must have been mistaken as to the identity of his bird, it having been "towards night", but anyway, there is small likelihood of the species having nested on any of this group of islands for a great many years.

C. B. Linton and G. Willett (7) took specimens during November and December at Santa Cruz Island, and found that they were not particularly shy. The crops of those shot contained sardines three or four inches long. There is in the British Museum (2) an adult taken in spring at San Miguel.

These birds are deep water fishermen and are to be found near the islands only where the ocean bottom drops abruptly. When resting they present a very chunky appearance, and, like most of their near relatives, they prefer to escape a pursuer by diving rather than by flying. They arrive in October and leave the first part of May, as A. van Rossem and I found them not uncommon at Santa Cruz Island up to May 2, 1911. Some of them, at least, acquire their nuptial plumage before this time.

## 10. *Ptychoramphus aleuticus* (Pallas)

### CASSIN AUKLET

*Ptychoramphus aleuticus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 519. (3) Streater, Orn. & Ool., XIII, 1888, p. 54. (4) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 140. (5) Stephens, Auk, x, 1893, p. 298. (6) Grinnell, Pasadena Acad. Sci., I, 1897, p. 22. (7) Ogilvie-Grant, Cat. Birds Brit. Mus., xxvi, 1898, p. 600. (8) Grinnell, Pac. Coast Avif., 3, 1902, p. 10. (9) Grinnell & Daggett, Auk, xx, 1903, pp. 30, 37. (10) Robertson, Condor, v, 1903, p. 96. (11) Breninger, Auk, xxi, 1904, p. 222. (12) Reed, N. Am. Birds' Eggs, 1904, p. 14. (13) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (14) Linton, Condor, x, 1908, p. 82. (15) Linton, Condor, x, 1908, p. 125. (16) Wright, Condor, xi, 1909, p. 98. (17) Osburn, Condor, xi, 1909, p. 135. (18) Willett, Condor, xii, 1910, p. 172. (19) Willett, Pac. Coast Avif., 7, 1912, p. 11. (20) Wright and Snyder, Condor, xv, 1913, pp. 86, 88. (21) Grinnell, Pac. Coast Avif., 11, 1915, p. 18.

*Ptychorampus aleuticus* (22) Grinnell, Pasadena Acad. Sci., II, 1898, p. 6. Cassin Auklet (23) Beck, Bull. Cooper Orn. Club, I, 1899, p. 85. (24) Anthony, Bull. Cooper Orn. Club, I, 1899, p. 102. (25) Willett, Condor, XII, 1910, p. 171.

A most abundant resident, breeding in all suitable localities that are free from cats and foxes. On the northernmost of the Coronados group there is a very large colony of these birds, but they occur on none of the other three. Common in the vicinity of San Clemente and Catalina during the winter months, but not recorded from either place in summer or spring.

In May, 1863, Cooper (2) found these birds numerous on Santa Barbara, where they had undermined almost every part of the soft, earthy surface with their burrows. In May, 1897, J. Grinnell (8, 22) recorded it as breeding in large numbers in the same locality. Since that time, cats have been introduced, and

in May, 1908, I could find no indications of the auklets' presence on the island. G. Willett (19), however, found about a hundred pairs breeding on a large detached rock near the main island, June 14, 1911. Nine nests examined held heavily incubated eggs.

G. Willett (25) states that the birds were common at Anacapa the night of June 5, 1910, and were undoubtedly breeding. They are not found on the main part of either Santa Cruz or San Miguel, but on a rocky islet near Scorpion Harbor, at the former island. R. H. Beck (23) found many occupied burrows on June 5, 1895. On Prince Islet (San Miguel) there is a large colony (18, 19, 20) which occupies all available space. Willett (19) thinks that they breed on Santa Rosa.

This species probably outnumbered all our other small pelagic birds combined. They seem to be somewhat more plentiful in winter than during the rest of the year, so it is possible that, although considered as non-migratory in California, there is, during the cold weather, a limited influx of individuals that have bred farther north, which mingle with the local birds. The nesting season varies appreciably from year to year. The birds begin looking for home sites towards the latter part of February, and fresh eggs may be expected by the last of March. During the middle of June, 1910, on the Coronados, however, I found fresh eggs to be the rule, and encountered but one small young out of a score of nests examined. On July 1, 1913, D. R. Dickey, A. van Rossem and I found but two or three badly incubated eggs, the remainder of the nests containing young in various stages, most of them being half grown. Other observers have reported a similar variation of nesting dates.

The single white egg is laid by preference in a burrow in soft ground, but in a large colony, a number of birds are forced to occupy crannies under and between rocks. New burrows are not constructed when old ones are available, and some of the latter are a foot in diameter at the entrance, seeming to have been occupied for a very great number of years. The birds are rather filthy, and the burrows have a very bad odor, strongly reminding one of an ill kept chicken house. The nestlings are at first covered with a slaty down which remains on the tips of the feathers some time after these have grown out. In the morning the crops of the youngsters were found to be stuffed with a thin, homogeneous mass which smelled most vilely.

The adults forage well out to sea, in pairs or as many as twenty-five individuals in a flock. They suffer a great deal from the depredations of the Duck Hawks, a pair or two of which are usually to be found near each colony. The auklets attain an amazing speed when pitching vertically from the tops of the islands upon being released from the hand, but the falcons overtake them with ease, and continue to slaughter after their hunger has been appeased, merely for the fun of it. The great mortality among these birds that the winter storms cause is appalling. After one of these storms I have walked along the beaches of our mainland for mile after mile, and counted dead or dying birds, sometimes averaging as close together as one every hundred yards (see Condor, xvi, 1913, p. 144). This is probably due more to their being unable to feed in very rough water, rather than to the buffeting of the waves.

11. **Synthliboramphus antiquus** (Gmelin)

## ANCIENT MURRELET

*Synthliboramphus antiquus* (1) Linton, Condor, x, 1908, p. 125. (2) Linton, Condor, xi, 1909, p. 102. (3) Linton, Condor, x, 1908, p. 193. (4) Osburn, Condor, xiii, 1911, p. 76. (5) Willett, Pac. Coast Avif., 7, 1912, p. 11. (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 18.

Probably a regular winter visitant, though there are comparatively few records of its occurrence. C. B. Linton (2, 3) took several and saw the remains of others during November and December, 1908, at San Clemente. At Catalina, February 13, 1910, A. van Rossem (MS) obtained an individual that was feeding near several Rhinoceros Auklets. C. B. Linton (1) secured two near the shore of Santa Cruz Island, December 17 and 18, 1907.

12. **Brachyramphus hypoleucus** Xantus

## XANTUS MURRELET

*Brachyramphus hypoleucus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 12. (2) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (3) Goss, Auk, i, 1884, p. 396. (4) Bryant, Cat. Birds Lower Calif., 1890, p. 250. (5) Grinnell, Pasadena Acad. Sci., i, 1897, p. 23. (6) Grinnell, Pasadena Acad. Sci., ii, 1898, p. 6. (7) Brewster, Birds Cape Region Lower Calif., 1902, p. 15. (8) Grinnell, Pac. Coast Avif., 3, 1902, p. 11. (9) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 16. (10) Reed, N. Am. Birds' Eggs, 1904, p. 16. (11) Linton, Condor, x, 1908, p. 125. (12) Lamb, Condor, xi, 1909, p. 8. (13) Wright, Condor, xi, 1909, p. 98. (14) Osburn, Condor, xi, 1909, p. 136. (15) Linton, Condor, xi, 1909, p. 193. (16) Willett, Condor, xii, 1910, p. 170. (17) Howell, Condor, xii, 1910, p. 184. (18) A. O. U. Check-list, 3d ed., 1910, p. 30. (19) Willett, Pac. Coast Avif., 7, 1912, p. 12. (20) Wright and Snyder, Condor, xv, 1913, pp. 86, 89. (21) van Rossem, Condor, xvii, 1915, p. 73. (22) Grinnell, Pac. Coast Avif., 11, 1915, p. 19.

Xantus Murrelet (23) Anthony, Bull. Cooper Orn. Club, i, 1899, p. 102. (24) Peyton, Oologist, xxx, 1913, p. 78.

*Micruria hypoleuca* (25) Anthony, Auk, xvii, 1900, p. 168.

Occurs in considerable numbers throughout the entire group of islands during the winter, and has been recorded breeding as far north as Anacapa.

A. W. Anthony (23) was the first to discover this bird nesting on the Coronados; since then it seems to have increased steadily in numbers, until at present it may be classed as abundant on all four islands of the group. One or more wild house cats on south island, however, make sad inroads on the birds that venture to nest there. C. B. Linton (15) took one at Clemente in December, 1908; H. Wright (19) has seen them there in summer, and believes that they were breeding. I consider this highly improbable, however, except that a few pairs may possibly be found on a large rock near the western end.

J. G. Cooper (2) reported them as breeding sparingly on Santa Barbara Island in 1863, and H. Wright (20) found a single fresh egg in a hole on this island, July 2, 1912. They are surely destined to be driven from this locality, as have the auklets, by the cats. H. C. Burt (19) took a slightly incubated egg on Anacapa, May 15, 1911, and during the spring of 1913, D. R. Dickey and A. van



Rossem found the birds to be not uncommon in the same locality. One was shot by G. Willett (11) during November, 1907, at Santa Cruz Island.

A. W. Anthony (23) states that on the Coronados in April, nearly all the eggs had hatched, but I have found fresh eggs in numbers the latter half of June, and a partly incubated set July 11, 1910. This might argue that two families are raised each year, but as a number of eggs are broken against the hard rocks on which they are deposited, and as the mortality among the downy young must be considerable, I am inclined to think that the great proportion of *hypoleucus* to be found nesting late in the season are birds whose first sets have come to grief.

They do not assemble in colonies, but a number of pairs will often nest close together in some especially nice rock slide or other favorite location. Nests may be found from just out of reach of the high tides to the very tops of the islands. A real burrow is never constructed, nor will they inhabit one that is made by another bird, the usual site being a deep cranny under or between rocks and boulders. They will, however, enlarge a small crack between the ground and a rock, or scratch away a hollow in the loam beneath a tangle of low brush. No material is used for construction of a nest, and a surprising number of eggs are cracked by rubbing against the sharp rocks. Forty-eight hours elapse between depositions of eggs, and these occur before six in the morning.

A series of 152 eggs collected during the last few years by D. R. Dickey, A. van Rossem and myself, and measured by me, averages 2.10x1.41 inches. Extremes are 1.93 to 2.30 inches in length, and 1.29 to 1.51 in diameter. No bird on the *Check-List*, possibly with the exception of those of the genus *Uria*, lay eggs exhibiting as wide a variation in color and markings as do those of *Xantus Murrelet*. Eggs even of the same set run from an almost solid dark chestnut to a clear sky blue with very faint markings. The majority have either a dark sea green or drab ground color, with a great variety of brown and lavender cloudings, spots and blotches. It is but rarely that both eggs of a set are of the darker type. D. R. Dickey has made a careful study of the sets of single eggs that occur so frequently, and he (*MS*) believes that the single eggs are incomplete sets, the parents of which have been killed, possibly by Duck Hawks, before the second egg was laid. Be that as it may, he has found only one incubated egg out of more than fifty sets of singles that he has examined, the remainder being either fresh or addled. This would indicate that the species practically never lays less than two eggs to the normal set.

The young show amazing vitality. A set of two pipped eggs rescued by A. van Rossem and myself after having been deserted among the cold, damp rocks by the parents thirty-six hours before, hatched two lusty youngsters, and these we succeeded in keeping alive for several days on a diet of hard-boiled eggs. When we substituted bits of fish for this, one died. The other escaped from his box, crawled out of the tent, tumbled down a cliff, and when discovered was making his way with all speed out to sea. The tarsus of a newly hatched chick is nearly as long as that of an adult, and they swim very fast, with their little feet fairly twinkling. Upon being placed in the sea at the age of two days, our bird at once made itself at home, diving at the slightest suspicion of danger and

swimming for several yards beneath the surface. A large fish twice rose at him, which the little fellow cleverly dodged. As in the case of the Ancient Murrelet (Heath, Condor, xvii, 1915, p. 35), the young are called to sea at night by the old birds. This, in the case of the present species, I have found to occur when the chicks are from three to four days old. I have gained so much respect for their swimming powers that I am inclined to think that but few perish by being dashed against the rocks while entering the sea. I do believe, however, that the larger fish get a good many, and as their down readily becomes waterlogged, numbers must perish during the spring storms. When first hatched, they present the most attractive appearance of any bird I know.

Shortly after dark during the breeding season, numbers of the adults make their way to the coves and shallow water about the islands, and from then until dawn they can be heard giving their characteristic cry, which may be described as a shrill, slow twitter, about four notes to the second. At night, and especially when hunting nesting sites, they will sometimes be attracted to a light on shore. They doubtless make several trips to the nests each night, but during the day they keep well to sea, in pairs or family parties, and when pressed too closely, will rise to the wind and fly some distance rather than dive. When attacked by a Duck Hawk while flying, they will suffer themselves to be caught rather than take to the water, but a wounded bird will almost make one believe that he has turned fish.

It has been stated (12) that this species will vomit a thin yellow oil when handled, after the manner of petrels, but of approximately a hundred and fifty live birds which I have handled, not one has shown any inclination to do this, neither do their stomachs contain any oil, only a clotted, greenish slime in those that I have taken, and very little of that. It seems probable that this is only an indigestible residue, and that they are partial to all forms of small crustacea and other sea life. I believe, however, that they very seldom eat fish.

13. **Brachyramphus craveri** (Salvadori)

CRAVERI MURRELET

*Brachyramphus craveri* (1) van Rossem, Condor, xvii, 1915, p. 74. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 175.

Near the Coronados on August 13, 1914, A. van Rossem (1) and L. M. Huey secured six murrelets that conform to the descriptions of *craveri*. J. Grinnell (2) suggests that the characters as given for this species are due merely to age. I have had little experience with this form, but am inclined to think that the difference between *craveri* and *hypoleucus* is not due to age, for I have handled scores of birds of the latter race, and none of them have had dark under wing coverts. As *hypoleucus* wanders well north of its breeding range after the nesting season, it is only natural that *craveri* should do likewise.

14. **Cephus columba** Pallas

PIGEON GUILLEMOT

*Uria columba* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 278. (3) Streater, Proc. Sta. Barbara Soc. Nat. Hist., 1, 1887, p. 22.

*Cephus columba* (4) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 495. (5) Blake, Auk, IV, 1887, p. 328. (6) Streater, Orn. & Ool., XIII, 1888, p. 53. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 23. (8) Grinnell, Pasadena Acad. Sci., II, 1898, p. 6. (9) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 18. (10) Grinnell, Pac. Coast Avif., 3, 1902, p. 11. (11) Linton, Condor, X, 1908, p. 125. (12) Willett, Condor, XII, 1910, p. 172. (13) A. O. U. Check-list, 3d ed., 1910, p. 31. (14) Willett, Pac. Coast Avif., 7, 1912, p. 12. (15) Wright and Snyder, Condor, XV, 1913, p. 88. (16) Grinnell, Pac. Coast Avif., 11, 1915, p. 19.

Pigeon Guillemot (17) Willett, Condor, XII, 1910, p. 171.

Common resident about the northern islands. J. G. Cooper (1) recorded this species from San Clemente in the sixties, and Willett (14) saw three birds near San Nicolas, June 26, 1911. I have seen a few near Catalina during April, and J. Grinnell (8) noted several in the same locality in December, 1897. The most southerly breeding station recorded is Santa Barbara Island, where J. Grinnell (8) found fresh sets of eggs May 15, 1897, and H. Wright (15) saw birds carrying food into the caves July 3, 1912.

D. R. Dickey (MS) says that on Anacapa, June 22, 1913, these birds were nesting in almost every tidal cave. Sites were chosen well back in the dark, where the dripping water and dank moisture would seem to make it impossible for eggs to hatch, but, nevertheless, most of the nests contained young.

II. Wright (15) found them breeding in considerable numbers near the north end of Santa Cruz Island, July 10, 1912, and A. van Rossem and I saw several off shore from Prisoners Harbor, April 24, 1911. On San Miguel, G. Willett (12) says they were breeding commonly in the caves and niches all around the island. On June 23, 1910, he found the contents of the nests to vary from fresh eggs to young of all sizes.

## 15. *Uria troille californica* (H. Bryant)

### CALIFORNIA MURRE

*Uria t[roille]. californica* (1) Willett, Condor, XII, 1910, p. 172.

*Uria troille californica* (2) Willett, Pac. Coast Avif., 7, 1912, p. 12. (3) Wright and Snyder, Condor, XV, 1913, p. 88. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 19.

Records from the mainland indicate that during the winter, this bird may be found as far south as Catalina at least. During the spring they occur in some numbers in the vicinity of Santa Cruz Island, where A. van Rossem and I encountered them in April, 1911, but the only place in this group where they have been found breeding is on Prince Islet, near San Miguel. J. S. Appleton and H. C. Burt (2) discovered this colony on June 6, 1906, and took fresh and slightly incubated eggs. II. Wright (3) states that on July 12, 1912, there were several small colonies there, aggregating probably one hundred pairs, which at this date mostly had young.

## 16. *Rissa tridactyla pollicaris* Ridgway

### PACIFIC KITTIWAKE

*Rissa tridactyla pollicaris* (1) Anthony, Auk, XV, 1898, p. 267. (2) Willett, Pac. Coast Avif., 7, 1912, p. 13.

Probably a regular winter visitant, although there are but few records. A.

W. Anthony (1) says that during the winters of 1896, '97 and '98 he found it of regular though not common occurrence about Los Coronados Islands. As these birds keep well away from the shore, they are more easily overlooked than are the other gulls.

17.

**Larus glaucescens** Naumann

## GLAUCOUS-WINGED GULL

*Larus glaucescens* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 6. (2) Breninger, Auk, XXI, 1904, p. 219. (3) Howell and van Rossem, Condor, XIII, 1911, p. 209. (4) Willett, Pac. Coast Avif., 7, 1912, p. 13. (5) Cooke, U. S. Dept. Agric., Bull. 292, 1915, p. 27.

A regular though not plentiful winter visitant. G. F. Breninger (2) noted immature birds but no adults at San Clemente during February, 1903, and D. R. Dickey, L. M. Huey and I saw one or two immatures daily during our visit to the same locality from March 22 to April 11, 1915. J. Grinnell (1) recorded the species from Catalina in December, 1897, and on May 1, 1911, A. van Rossem (3) saw three individuals at close range on Santa Cruz Island.

18.

**Larus occidentalis** Audubon

## WESTERN GULL

*Larus occidentalis* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 79. (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 231. (3) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 22. (4) Blake, Auk, IV, 1887, p. 329. (5) Streater, Orn. & Ool., XIII, 1888, p. 53. (6) Saunders, Cat. Birds Brit. Mus., XXV, 1896, p. 258. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 23. (8) Grinnell, Pasadena Acad. Sci., II, 1898, p. 6. (9) Grinnell, Pac. Coast Avif., 3, 1902, p. 12. (10) Grinnell and Daggett, Auk, XX, 1903, pp. 30, 37. (11) Breninger, Auk, XXI, 1904, p. 219. (12) Anthony, Auk, XXIII, 1906, p. 135. (13) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (14) Linton, Condor, X, 1908, p. 125. (15) Wright, Condor, XI, 1909, p. 98. (16) Osburn, Condor, XI, 1909, p. 193. (17) Linton, Condor, XI, 1909, p. 193. (18) Willett, Condor, XII, 1910, p. 173. (19) Osburn, Condor, XIII, 1911, p. 32. (20) Burt, Condor, XIII, 1911, p. 164. (21) Willett, Pac. Coast Avif., 7, 1912, p. 14. (22) Wright and Snyder, Condor, XV, 1913, pp. 86, 89. (23) Grinnell, Pac. Coast Avif., 11, 1915, p. 21. (24) Cooke, U. S. Dept. Agric., Bull. 292, 1915, p. 34.

*Larus argentatus* var. *occidentalis* (25) Henshaw, Rep. Wheeler Surv., 1876, p. 276. Western Gull (26) Willett, Condor, XII, 1910, p. 171.

Permanent and abundant resident, breeding on all islands that are not infested with foxes, and when the latter condition prevails, on the nearby detached rocks. The Western Gull begins selecting a nesting site the first part of April, and eggs are usually deposited during the last week in that month and first of May. Some of the young are able to fly by the first of July, but, of course, if a first set is destroyed, unfledged young may be found late in the summer.

During the fall and winter *occidentalis* is a highly valued citizen, but I defy anyone to visit a breeding colony and not wish, in the heat of anger, that every bird of the species might drop dead. If a colony of cormorants, pelicans or murre is disturbed, there is always a cloud of the larine robbers ready to pounce on the unprotected eggs, and puncture as many of them as possible. They are

particularly fond of newly hatched cormorants and will gulp them down with the utmost satisfaction. If the youngster is too large or if it happens to be a pelican chick instead, they will just as cheerfully peck a hole in its skull, just to be doing something. A. W. Anthony (12) saw one pull an adult Cassin Auklet from a shallow hole, and swallow it with the same relish that it did the egg a moment later, and he has watched them in the act of dismembering half grown cormorants. As a rule, however, this destruction takes place only when a human intruder invades the colonies; if we would deny ourselves the pleasure of walking through these in the nesting season, it would certainly help to put the economic value of *occidentalis* on the right side of the ledger.

19. **Larus argentatus** Pontoppidan

HERRING GULL

*Larus argentatus* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 7. (2) Dawson, Condor, XVII, 1915, p. 204.

Probably of regular occurrence in winter. On April 5, 1915, I noted two adults of this species at San Clemente, and during the following week, one or two were seen daily about the harbor. J. Grinnell (1) found that it was present in small numbers at Catalina during December, 1897, and secured one specimen. While at Santa Cruz Island in April, 1915, W. L. Dawson (2) saw two of these birds at close range.

20. **Larus californicus** Lawrence

CALIFORNIA GULL

*Larus californicus* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 23. (2) Breninger, Auk, XXI, 1904, p. 219. (3) Linton, Condor, X, 1908, p. 82. (4) Osburn, Condor, XI, 1909, p. 136. (5) Willett, Pac. Coast Avif., 7, 1912, p. 14. (6) Cooke, U. S. Dept. Agric., Bull. 292, 1915, p. 41.

Undoubtedly common about all the islands during the winter months. C. B. Linton (3) says they were common at San Clemente during January and February, 1907; and during the latter part of March and first of April, 1915, in the same locality, D. R. Diekey, L. M. Huey and I noted them daily in company with the Western Gulls. A. van Rossem saw several at Santa Cruz Island April 24, 1911, and C. B. Linton (MS) has taken specimens there.

21. **Larus delawarensis** Ord

RING-BILLED GULL

*Larus delawarensis* (1) Howell and van Rossem, Condor, XIII, 1911, p. 209.

As on the mainland, this species is probably almost as common in winter as the last, but in some plumages it is so difficult to distinguish between the two that it is impossible to determine their relative abundance. I have seen a few individuals at Catalina in April, and during the same month, 1911, A. van Rossem and I positively identified several at Santa Cruz Island.

22. **Larus brachyrhynchus** Richardson

## SHORT-BILLED GULL

The only record for this species is that of three immature specimens taken by A. van Rossem (MS) at Catalina, February 11, 1910, two of which are now in my collection.

23. **Larus heermanni** Cassin

## HEERMANN GULL

*Blasipus belcheri* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79.

*Larus heermanni* (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 253.

(3) Blake, Auk, iv, 1887, p. 329. (4) Grinnell, Pasadena Acad. Sci., I, 1887, p. 24.

(5) Grinnell and Daggett, Auk, xx, 1903, pp. 28, 30, 37. (6) Breninger, Auk, XXI, 1904, p. 219. (7) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (8) Linton, Condor, x, 1908, p. 82. (9) Linton, Condor, x, 1908, p. 125. (10) Willett, Condor, XII, 1910, p. 173. (11) Willett, Pac. Coast Avif., 7, 1912, p. 14. (12) Cooke, U. S. Dept. Agric., Bull. 292, 1915, p. 49.

*Larus heermanni* (13) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 22. (14) Wright and Snyder, Condor, xv, 1913, p. 89.

*Larus heermanni* (15) Streater, Orn. & Ool., XIII, 1888, p. 54.

These birds are to be met with off the coast of southern California the year round, but the majority leave for the south about March. During July, birds of the year begin reaching us. Heermann (2) said that this gull breeds on the Coronados, and J. G. Cooper, that it probably did so on other islands south of San Francisco. As it is now pretty well proven that the species does not nest on the seaward coast north of Cape San Lucas at least, there must have been mistakes in regard to the above statements.

The Heermann Gull as a rule is not as fond of coming close to shore as are the other gulls, but prefers to stay out in the channel, where the usual method of securing a meal is to haunt some patient pelican and wildly grab at any fish which the latter may capture. C. B. Linton (8) found that at Santa Cruz Island, during November and December, 1907, their principal food consisted of shrimps which they caught in the kelp, and I have watched them catching sardines two or three inches long.

24. **Larus philadelphia** (Ord)

## BONAPARTE GULL

*Larus philadelphia* (1) Howell and van Rossem, Condor, XIII, 1911, p. 209.

Abundant during migrations along the mainland coast, but seldom wandering out to the islands. During the latter part of April, 1911, A. van Rossem and I (1) noted several at Santa Cruz Island.

25. **Xema sabini** (J. Sabine)

## SABINE GULL

*Xema sabini* (1) Willett, Pac. Coast Avif., 7, 1912, p. 15. (2) Wright, Condor, xv, 1913, p. 227. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 23. (4) Cooke, U. S. Dept. Agric., Bull. 292, 1915, p. 65.

Probably a regular migrant in the channel well out from shore. H. Wright (1) took a pair near Santa Cruz Island August 6, 1909, and a female near the Coronados August 20, 1910. On August 11, 1912, he (2) saw a flock of eight or ten birds about ten miles from Santa Cruz Island, and on August 1, another flock between the latter and Santa Barbara Island. E. W. Nelson informs me that he has also seen small flocks in the channel during the fall.

26.

***Sterna maxima* Boddaert**

## ROYAL TERN

*Sterna regia* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 277.

*Sterna maxima* (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 286.

(3) Blake, Auk, IV, 1887, p. 329. (4) Streater, Orn. & Ool., XIII, 1888, p. 54. (5) Grinnell, Pasadena Acad. Sci., II, 1898, p. 7. (6) Grinnell, Pac. Coast Avif., 3, 1902, p. 13. (7) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 29. (8) Linton, Condor, X, 1908, p. 82. (9) Linton, Condor, X, 1908, p. 126. (10) Willett, Condor, XII, 1910, p. 173. (11) Willett, Pac. Coast Avif., 7, 1912, p. 15. (12) Grinnell, Pac. Coast Avif., 11, 1915, p. 24.

Present among the islands throughout the year, but rather rare in spring. I have seen several of these beautiful birds in the vicinity of the Coronados during the early summer. C. B. Linton (11) noted a few near San Nicolas June 17, 1910, where C. P. Streater (4) also saw them in the fall of 1886. Linton (8) also reported the species as very common during October, December and January, 1907, at San Clemente, but few were seen after February 5. J. Grinnell (5) found it numerous in the vicinity of Catalina during the winter, and I have noted a few individuals there in April. E. W. Blake (3) recorded it from Santa Cruz Island in July and August, and C. B. Linton (9) says it was common there during November and December, 1907.

H. W. Henshaw (1) was informed that the species bred in numbers on San Miguel, but it seems unlikely that it has done so in recent years at least, as several have made special searches for nests there. G. Willett (10), however, saw several immature birds near the west end of the island June 17, 1910.

27.

***Sterna forsteri* Nuttall**

## FORSTER TERN

*Sterna forsteri* (1) Grinnell and Daggett, Auk, XX, 1903, pp. 32, 37.

Reported only in spring and summer, but doubtless occurring sparingly in the fall and winter as well. Several were seen by J. Grinnell and F. S. Daggett (1) while approaching the Coronados, August 6, 1902, and I have noted an occasional bird the early part of July in the same locality. I also several times saw what I believe was the same individual near Catalina in April, 1907. I have included the above records under *Sterna forsteri* simply because the first were so reported, and I have added my own observation to it because *forsteri* is the commoner form in the region. Recent investigations have shown that *S. hirundo* is almost as common off the coast of southern California as is *forsteri*, and the individuals seen may have been of either species. Undoubtedly both do occur near the islands at times.

28. **Diomedea nigripes** Audubon

## BLACK-FOOTED ALBATROSS

*Diomedea nigripes* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 24.

Rather rare straggler to the channel from the open sea. J. Grinnell (1) saw a single specimen between San Nicolas and San Clemente islands May 27, 1897, and another between the latter and Catalina June 8 of the same year. He (MS) also noted several between Catalina and Santa Barbara islands August 27, 1903.

29. **Diomedea albatrus** Pallas

## SHORT-TAILED ALBATROSS

*Diomedea brachyura* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 79.

*Diomedea albatrus* (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 354.

(3) Grinnell, Pasadena Acad. Sci., II, 1898, p. 8. (4) Willett, Pac. Coast Avif., 7, 1912, p. 17.

*Diomedea albatros* (5) Streater, Orn. & Ool., XIII, 1888, p. 54.

Probably slightly more numerous in the channel than is the last mentioned species. J. G. Cooper (1) says that these birds occur near San Clemente and San Nicolas, and C. P. Streater (5) saw quite a number between the latter point and the mainland. C. B. Linton (4) has the head of one that was taken alive by his cook on San Nicolas Island, and Dr. J. G. Cooper told Grinnell (3) that he had taken the species near Catalina.

30. **Fulmarus glacialis glupischa** Stejneger

## PACIFIC FULMAR

*Fulmarus glacialis glupischa* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 8.

*Fulmarus glacialis glupischa* (2) Linton, Condor, X, 1908, p. 82. (3) Linton, Condor, X, 1908, p. 126. (4) Willett, Pac. Coast Avif., 7, 1912, p. 17.

Abundant at sea during certain times of the year. C. B. Linton (2) says that he has often seen these birds during the winter, while going from the mainland to San Clemente, but that he noted none near shore. J. Grinnell (1) found them very common about Catalina in December, 1897, and on April 27, 1908, I found the decomposed remains of one in the same locality. C. B. Linton and G. Willett (3) took several in the dark phase, and one in the light phase of plumage, near the shores of Santa Cruz Island, November 25 and December 4, 1907. They also saw the species in the vicinity of Anacapa about the same time.

Occasionally during the winter these birds flock to the fishing banks sixty miles off San Pedro, by the thousands. They are then usually very tame, coming right up to the boats, and endeavoring to snatch fish as they are hauled aboard. The men often catch them in their hands to watch the stupid actions of the birds when placed on deck.

31. **Puffinus creatopus** Coues

## PINK-FOOTED SHEARWATER

*Puffinus creatopus* (1) Coues, Proc. Acad. Nat. Sci. Phila., XVI, 1864, p. 131. (2) Cooper,



Proc. Calif. Acad. Sci., iv, 1868, p. 11. (3) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (4) Baird, Brewer and Ridgway, Water Birds N. Am., ii, 1884, p. 384. (5) Grinnell, Pasadena Acad. Sci., i, 1897, p. 24. (6) Grinnell, Pasadena Acad. Sci., ii, 1898, p. 8. (7) Godman, Monog. Petrels, ii, 1908, p. 101. (8) Willett, Condor, xii, 1910, p. 173. (9) Willett, Pac. Coast Avif., 7, 1912, p. 18. (10) Wright and Snyder, Condor, xv, 1913, p. 89.

Abundant during summer, fall, and the first part of the winter. Originally described from a bird taken by J. G. Cooper (1) near San Nicolas Island. Cooper (4) found it to be the most abundant and easily approached species of Tubinares near San Nicolas, where the water is shallow and small fish numerous. I have seen individuals around the Coronados during the months of June and July; and L. M. Huey (MS) saw a few in the same locality on August 13, 1914. H. A. Gaylord (6) noted birds near Catalina May 12, 1897. A. van Rossem and I met with the species the last of April and first of May, 1911, near Santa Cruz Island. G. Willett (8) recorded it from Santa Cruz and Santa Rosa, June 7, 1910, where, by the 24th it had become quite plentiful, and the same writer (9) encountered it near Anacapa and Santa Cruz in November and December, 1907.

### 32. *Puffinus opisthomelas* Coues

#### BLACK-VENTED SHEARWATER

*Puffinus opisthomelas* (1) Anthony, Auk, xiii, 1896, p. 225. (2) Grinnell, Pasadena Acad. Sci., i, 1897, p. 24. (3) Grinnell, Pasadena Acad. Sci., ii, 1898, p. 8. (4) Anthony, Auk, xvii, 1900, p. 247. (5) Grinnell, Pac. Coast Avif., 3, 1902, p. 15. (6) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 35. (7) Godman, Monog. Petrels, ii, 1908, p. 109. (8) Linton, Condor, x, 1908, p. 126. (9) Osburn, Condor, xi, 1909, p. 136. (10) Linton, Condor, xi, 1909, p. 193. (11) Howell, Condor, xii, 1910, p. 186. (12) Willett, Pac. Coast Avif., 7, 1912, p. 18. (13) Grinnell, Pac. Coast Avif., 11, 1915, p. 26. *Puffinus gavia* (14) Breninger, Auk, xxi, 1904, p. 219.

Abundant except in the breeding season, sometimes making its appearance in early May, but not becoming plentiful until some time later. Remains until February at least. During July, August and September these birds are particularly abundant in the channel. I noted half a dozen individuals several times during the middle of May, 1910, near the Coronados (11), and J. Grinnell (2) saw several off Catalina May 12, 1897. C. B. Linton (10) saw the species near San Clemente in the winter of 1908, and G. Willett (12) encountered it several times near Santa Cruz Island in November, 1907.

As has been stated in print many times, there are four eggs that were said to be of this species, in the National Museum, collected by Captain Scammon on Santa Barbara Island. As most of us on this coast have viewed the above record with considerable distrust, I wrote Dr. C. W. Richmond in regard to it, eliciting the following: "The eggs are in all probability those of Cassin's Auklet (*Pt. aleuticus*) with which they agree in size and texture of shell. They had written on them, in pencil, 'Egg of the Mutton Bird, Santa Barbara Id. Cal.' From this beginning someone had added (on the data blank) '*Puffinus gavia?*', and as the eggs of *Puffinus* were not common in our collection at that time, the determination passed muster for the time being". This undoubtedly solves the question. *Opisthomelas* nests in large colonies, and as it does not invariably

nest on the same island in consecutive years, there is still hope that it may some time be found breeding at least as far north as the Coronados.

33.

**Puffinus griseus** (Gmelin)

## SOOTY SHEARWATER

*Nectris fuliginosus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79.

*Puffinus griseus* (2) Grinnell, Pasadena Acad. Sci., i, 1897, p. 24. (3) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 229. (4) Linton, Condor, x, 1908, p. 126. (5) Linton, Condor, xi, 1909, p. 193. (6) Willett, Condor, xii, 1910, pp. 170, 174. (7) Willett, Pac. Coast Avif., 7, 1912, p. 18. (8) Wright and Snyder, Condor, xv, 1913, p. 89.

This, our commonest shearwater, is found in the channel throughout the year, but is less common during the winter months. It often occurs in company with *creatopus* and more rarely with *opisthomelas*. In late spring and early summer Sooty Shearwaters migrate through the channel in flocks numbering tens of thousands, these sometimes taking the greater part of a day to pass a given point.

34.

**Oceanodroma kaedingi** Anthony

## KAEDING PETREL

*Oceanodroma kaedingi* (1) Willett, Pac. Coast Avif., 7, 1912, p. 19.

The only record for this species is that of an adult male which flew aboard the Fisheries ship "Albatross" near San Clemente Island, March 22, 1904, and was captured by L. H. Miller (1). I am told by the fishermen that at certain times during the winter, small petrels will congregate on the fishing banks in great flocks. As Anthony described this bird from Lower California, and as it breeds to the north of us, it undoubtedly migrates past the islands.

35.

**Oceanodroma melania** (Bonaparte)

## BLACK PETREL

*Oceanodroma townsendi* (1) Anthony, Auk, xi, 1894, p. 231. (2) A. O. U. Committee, Auk, xii, 1895, p. 168.

*Oceanodroma melania* (3) Grinnell, Pasadena Acad. Sci., i, 1897, p. 25. (4) Anthony, Auk, xv, 1898, p. 140. (5) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (6) Brewster, Birds Cape Region Lower Calif., 1902, p. 32. (7) Grinnell and Daggett, Auk, xx, 1903, pp. 30, 37. (8) Godman, Monog. Petrels, i, 1907, p. 24. (9) Linton, Condor, x, 1908, p. 82. (10) Linton, Condor, x, 1908, p. 126. (11) Willett, Condor, xii, 1910, p. 174. (12) A. O. U. Check-list, 3d ed., 1910, p. 57. (13) Osburn, Condor, xiii, 1911, p. 31. (14) Willett, Pac. Coast Avif., 7, 1912, p. 19. (15) van Rossem, Condor, xvii, 1915, p. 76. (16) Grinnell, Pac. Coast Avif., 11, 1915, p. 29.

*Oceanodroma melania* (17) Coues, Key N. Am. Birds, 5th ed., 1903, p. 1043.

Black Petrel (18) Willett, Condor, xii, 1910, p. 170.

Breeds on Los Coronados Islands. Fairly common in the channel throughout the year. Under the heading of this species J. Grinnell (3) states that small petrels of some kind were heard at night on the east end of San Nicolas, and at Mosquito Harbor at San Clemente, in May, 1897. In the channel between Clemente and Anacapa the species has been recorded commonly, but near none of

the intervening islands. Near Anacapa G. Willett (18) found it common June 5, 1910; and H. Wright (Condor, xv, 1913, pp. 87, 90) noted the remains of either a Black or Socorro Petrel on the island itself, July 5, 1912. It is likely, however, that this was a bird caught at sea by a Duck Hawk, and, when partly eaten, dropped on the island.

A. W. Anthony (1) visited the Coronados April 21, 1896, and found that *melania* was then mating and hunting nesting sites. He gives their notes as "Tuc-a-roo, tuc-tuc-a-roo", which is a very good rendition of their call. When D. R. Dickey (MS) visited the islands May 15, 1914, no petrels were observed, although the colonies were gone over most carefully by three people. On May 26 a few pairs were found together on the nests, but no eggs had been laid; on June 12, fresh eggs were the rule. My first fresh egg in 1910 was found June 17, but on the same date in 1913, A. van Rossem and I found that incubation was slightly more advanced. The earliest date that I have seen downy young was July 4. On August 13, 1914, A. van Rossem and L. M. Huey (MS) say that all the young birds were small, not more than a week old and most of them newly hatched. One fresh egg was discovered besides several incubated ones.

These birds do not nest in colonies but are apt to be scattered anywhere about the islands. Where especially favorable sites occur, however, several nests may be within a few feet of each other. The best place to look for eggs is under or between good sized boulders. Here a little dirt may be scratched away at the entrance of the nest cavity in order to make room. From over a hundred nests examined I have found only half a dozen occupying true burrows that may have been excavated by the birds themselves, but as these were all in a colony of *O. socorroensis*, I prefer to believe that they were originally made by the latter, and later preëmpted by *melania*. As many more were in very old burrows of the Cassin Auklet. For a short time after completing the nest site, and before the egg is deposited, both birds of a pair will be found occupying the burrow during the day, but after laying, only one parent, either male or female, will be found at home. No structural material is used, the egg being laid on the bare ground. It is usually pure white, but rarely there is a suspicion of a lavender wreath about the larger end. I find that the average measurements of thirty-six specimens are 1.39x1.02 inches. Extremes are 1.28 to 1.48 in length, and .96 to 1.08 in diameter. D. R. Dickey and A. van Rossem (MS) state that the bird, while at or on the nest during the night, utters a note suggestive of the song of the wren-tit.

The young are covered, except the chin, with slaty down, and are most unattractive little things. This down clings to the end of the plumage until after the body feathers at least have made their full growth. Nine times out of ten, when removed from the nest, the old bird will vomit a short stream of dark, orange colored oil, several times repeated, to a distance of four feet or more. She will savagely bite the finger of her captor and will even lay hold of her own wing in her rage. The oil has the typical petrel pungence, comparable to no other odor with which I am familiar, but to those who have spent happy days in the colonies, it is not unpleasant. It will cling to specimens after they have been shut up in cases for years. This oil, by regurgitation, constitutes the food of the

nestlings. It is generally conceded that the young of the rock lobster is the main food supply of all our small California petrels, as A. W. Anthony (4) has pointed out. From these the oil in the stomach must be secreted, and quite rapidly at that, for birds taken early in the morning after a night at sea contain much oil and only a recognizable trace of the crawfish, in addition to a very little green slime. The oil gland of this species is a dark gray in contrast to the creamy color of that of *socorroensis*.

One often encounters lone individuals of these birds at sea during the day, flapping just above the waves in an aimless and erratic manner. A. W. Anthony (1), however, secured one from a flock of some two hundred birds. They suffer considerably from the depredations of the Duck Hawks, as their desiccated remains upon the islands bear mute witness. They begin visiting the nests about 8:30 p. m. and are very active until shortly before dawn. Pitching in from the sea they come like big black bats, rocking to the breeze and uttering their loud weird call.

### 36. *Oceanodroma homochroa* (Coues)

#### ASHY PETREL

*Cymochorea homochroa* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 277. (2) Baird, Brewer and Ridgway, Water Birds N. Am., 11, 1884, p. 412.

*Oceanodroma homochroa* (3) Salvin, Cat. Birds Brit. Mus., xxv, 1896, p. 356. (4) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (5) Reed, N. Am. Birds' Eggs, 1904, p. 54. (6) Godman, Monog. Petrels, 1, 1907, p. 29. (7) A. O. U. Check-list, 3d ed., 1910, p. 57. (8) Willett, Pac. Coast Avif., 7, 1912, p. 19. (9) Wright and Snyder, Condor, xv, 1913, p. 88. (10) Wright, Condor, xv, 1913, p. 229. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 28.

[*Oceanodroma*]. *homochroa* (12) Coues, Key N. Am. Birds, 5th ed., 1903, p. 1043.

Fairly common in the channel at certain times. Breeds on Santa Cruz, and possibly on San Miguel. G. Willett (8) found this species to be plentiful in the channel between San Nicolas and Santa Barbara islands in June, 1911, and L. H. Miller has an adult female that he took near the latter place April 10, 1904.

H. Wright (9) discovered them nesting in Painted Cave, Santa Cruz Island, July 10, 1912. Four eggs and one small young were all that he found, deposited on the bare exposed ledges in the dark parts of the cave. On June 23, 1913, D. R. Diekey (MS) visited this locality and found that apparently but one pair were nesting, for after a very thorough search, a single bird was located sitting on a slightly incubated egg high above the water, in one of the side pockets of the big cave.

H. W. Henshaw (1) received from Capt. Forney a specimen that was taken on San Miguel, where the latter said that it bred in great numbers. G. Willett (8) as well as others have made a careful search of this island without finding indications of breeding petrels. It is quite possible that a few pairs may breed in the caves of the main island, or on Prince Islet, but it is doubtful if the foxes would allow any large colonies of small pelagic birds to become established on San Miguel proper.

37. **Oceanodroma socorroensis** C. H. Townsend

## SOCORRO PETREL

*Oceanodroma socorroensis* (1) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 134. (2) Anthony, Auk, XII, 1895, p. 387. (3) A. O. U. Committee, Auk, XIV, 1897, p. 117. (4) Anthony, Auk, XV, 1898, p. 140. (5) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 58. (6) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (7) Grinnell and Daggett, Auk, XX, 1903, pp. 31, 37. (8) Reed, N. Am. Birds' Eggs, 1904, p. 54. (9) Osburn, Condor, XIII, 1911, p. 31. (12) Willett, Pac. Coast Avif., 7, 1912, p. 20. (13) van Rossem, Condor, XVII, 1915, p. 76. (14) Grinnell, Pac. Coast Avif., 11, 1915, p. 28. *Oceanodroma*. *socorroensis* (15) Coues, Key N. Am. Birds, 5th ed., 1903, p. 1044. *Oceanodroma monorhis* (16) Godman, Monog. Petrels, I, 1907, p. 33.

Breeds commonly on the smallest island of Los Coronados group. A. W. Anthony (1) says that on the Coronados, April 24, 1896, he found a number of nearly finished burrows and one bird. June 12, 1914, D. R. Diekey (MS) found several pairs of birds but no eggs. It will therefore be seen that *socorroensis* begins preparing the burrows nearly two months before laying. This species breeds only in burrows which are excavated by the birds themselves, and for this reason, to be looked for only where there is a deposit of light loam, sometimes overgrown with a dense mat of bushes. The tunnels are usually about two feet long, enlarged at the end. In the majority of cases they turn either to the right or left a few inches from the entrance, which latter seems unusually small for the size of the bird and is more than twice as wide as high. Occasionally the egg is laid on the bare ground, but usually there is a flimsy platform of any bits of twigs and rootlets that may be handy. The egg has a wreath of faint lavender dots and tracings about the larger end. The average measurement of forty-two which I have had in my possession, is 1.18x.89 inches, and the extremes are 1.09 to 1.23 in length, and .82 to .97 in diameter. I believe that the nesting dates of the Black and Socorro petrels will run about the same. In 1910 I did not find an egg of the latter until June 22, while those of the former were taken a week previous. In 1913 A. van Rossem and I found the opposite to hold good, for during the latter half of June slightly incubated eggs of *socorroensis* was the rule, while those of *melania* were still fresh.

Unlike their larger relative, Socorro Petrels but rarely vomit oil when removed from the nest, but will often do so immediately after having been released from the hand. This oil is substantially the same as that secreted by *melania*, but sometimes contains flakes of whitish mucous matter, in addition to a little green slime and a tiny rock lobster or two. Some birds taken by A. van Rossem (MS) in 1914, contained what appeared to be young squid about an inch long. In the hand one is impressed by the frailty and apparent weakness of these birds. When released they launch forth in an uncertain manner, twisting and turning in their nighthawk-like flight. If placed upon the ground they poke confusedly about among the bushes.

F. Godman (16) considers this species and *Oceanodroma monorhis* of the western Pacific, to be indistinguishable, although the type of the latter is of a lighter gray on the head and throat than is the former. Dr. Hartert (MS) of

the Tring Museum tells me that in addition to the above differences, *monorhis* averages larger than *socorroensis*, and that he considers the two species not quite the same. As for the light gray or plumbeous shade of the head of our bird, and presumably the other, this should not be taken as a specific character. In freshly taken breeding birds it is very noticeable, but after the skin is laid away in a cabinet for a year or two, the head becomes as dark as the rest of the body.

As is well known, this species has two extreme color phases. In one the rump is of the same color as the back and underparts, while in the other, the rump is almost entirely white. One of the latter was described under the name *Oceanodroma monorhis chapmani* (Berlepsc, Auk, xxiii, 1906, p. 185). Every degree of intergradation occurs between the two types. I have studied this out as thoroughly as possible and although I have been unable to reach any positive conclusion in regard to the significance of this variation, I shall give the facts as they appear to me in order that they may form the basis from which others may work in the future.

I judge that when, in a given species, there are two distinct phases with every degree of intergradation between, this species is in process of evolution from one type to the other. Thus *socorroensis* was originally either a dark-rumped or a white-rumped race, and is now evolving to the other extreme. Birds collected in 1902 by F. S. Daggett show a ratio of white- to dark-rumped birds of 1 to 9. In 1910 I found the proportion of those which I took on the Coronados was in the neighborhood of 1 to 5, while in 1913 the ratio was not far from 1 to 2½. However, A. van Rossem (13) and L. M. Huey found that on August 13, 1914, the ratio had gone back to about 1 to 4. J. Grinnell and F. S. Daggett (7) seem to think that these petrels are descended from a wide-spread, white-rumped ancestor, and of course this may be true; but from the averages taken during the first part of three nesting seasons, it will be seen that the proportion of light-rumped birds is quite rapidly increasing, and it seems reasonable to conclude that in a relatively short time, a dark-rumped specimen of *socorroensis* will be rare.

Another possible, though improbable, explanation of the occurrence of the two types, is that two species, a white- and a dark-rumped one, have bred together and hybridized too recently for the characters of the resulting hybrid to have become thoroughly fixed. If this was the case, the birds of one of the extreme phases should closely approach some other species, which, as far as I am aware, it does not do. Also the two phases occur among the breeding birds of both the Coronados and San Benito islands, and it does not appear likely that the crossing of two species would occur upon the two islands simultaneously.

In order to discover whether there is any size difference between the two phases, I measured a series of a hundred and forty-three birds collected by D. R. Dickey, A. van Rossem, F. S. Daggett and myself. I divided the birds into four groups according to the amount of white exhibited, calling them dark, medium, light and white. The number of birds in each group was, respectively, 45, 46, 19 and 24. Measurements of the extremes, dark and white, show that the former is slightly greater in length (taken only of birds in the flesh) wing, tail, bill, tarsus, middle toe and fork of tail. This held good also in comparative group meas-

urements of males and females. The greatest difference was shown in the length of wing of the dark and the white males, which varied 4 millimeters. There were 69 males and 65 females. Comparison showed that the greater wing coverts (the light patch) of the white-rumped birds are of a more grayish tinge and a lighter shade than are those of the dark-rumped, and in the former the throat is more plumbeous than in specimens of the latter collected at the same time. In short, the differences seem pronounced enough to warrant recognizing a subspecies, if it was not for the vital fact that the two extreme types may repeatedly be found together in the burrows before the egg is deposited. This precludes the possibility of a valid subspecies.

### 38. **Phalacrocorax auritus albociliatus** Ridgway

#### FARALLON CORMORANT

*Graculus dilophus* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 79. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 275.

*Phalacrocorax dilophus albociliatus* (3) Baird, Brewer and Ridgway, Water Birds N. Am. II, 1884, p. 153. (4) Streater, Orn. & Ool. XIII, 1888, p. 54. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 25. (6) Grinnell, Pasadena Acad. Sci., II, 1898, p. 9. (7) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (8) Linton, Condor, x, 1908, p. 126.

*Phalacrocorax dilophus* (9) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 23.

Farallon Cormorant (10) Beck, Bull. Cooper Orn. Club, I, 1899, p. 85. (11) Willett, Condor, XII, 1910, p. 170.

*Phalacrocorax auritus albociliatus* (12) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (13) Grinnell and Daggett, Auk, xx, 1903, pp. 32, 37. (14) Linton, Condor, x, 1908, p. 82. (15) Wright, Condor, xi, 1909, p. 99. (16) Osburn, Condor, xi, 1909, p. 136. (17) Willett, Pac. Coast Avif., 7, 1912, p. 20. (18) Wright and Snyder, Condor, xv, 1913, p. 90. (19) Grinnell, Pac. Coast Avif., 11, 1915, p. 29.

*Phalacrocorax a[uritus]. albociliatus* (20) Willett, Condor, XII, 1910, p. 173.

Common resident, breeding on most of the islands. This species is an abundant breeder on the Coronados, the principal colonies being located on north island. In the spring of 1897, J. Grinnell (5) noted immature birds commonly at San Nicolas, but none were found breeding. At San Clemente C. B. Linton (14) recorded the species as fairly common during the winter months, a flock of some two hundred birds being seen February 5, 1907.

I have found a few old nests, too early in the season for eggs, among those of the Brandt Cormorant, on Ship Rock, near Catalina. This is the only time that I have ever noted nests of the two species within a few feet of each other. Large numbers breed on Santa Barbara Island, where, towards the latter part of April, they begin coming in from the sea, to select and start repairing the old nests. J. Grinnell (5) notes, however, that on May 15, 1907, only two sets of eggs had as yet been laid. D. R. Dickey (MS) states that there were quite a number breeding on Anacapa in 1913, and H. Wright (18) found a few pairs with newly completed nests there as late as July 5, 1912. R. H. Beck (10) says that in 1895 there were birds breeding on a rock near Scorpion Harbor, Santa Cruz Island; and on Prince Islet, San Miguel, G. Willett (20) recorded quite a large colony with nearly full grown young and eggs in various stages, June 15, 1910.

The nests of *albociliatus* can always be told at a glance from those of the two following species. They are quite bulky and well made, and are invariably formed of weed stems, small sticks, or whatever similar material is handy. They are always placed (on these islands) on the ground, usually on a high hillside. Although breeding in colonies, these are seldom compact ones, and where a pelican colony is available, they prefer to build among the nests of the latter. Three, more rarely four, and occasionally five, eggs are laid, but because of the depredations of the gulls the breeding season is a long one. In addition, the time when eggs are deposited would seem to vary greatly from year to year (as is the case with our other cormorants as well), for A. van Rossem (*MS*) took a set of five eggs on the Coronados March 26, 1909, while J. Grinnell and F. S. Daggett (*13*) found two nests with eggs, and several containing small young, in the same locality, August 7, 1902.

39.

**Phalacrocorax penicillatus** (Brandt)

## BRANDT CORMORANT

*Graculus penicillatus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 276.

*Phalacrocorax penicillatus* (3) Baird, Brewer and Ridgway, Water Birds, N. Am., II, 1884, p. 159. (4) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 23. (5) Blake, Auk, iv, 1887, p. 329. (6) Streater, Orn. & Ool., XIII, 1888, p. 54. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 25. (8) Grinnell, Pasadena Acad. Sci., II, 1898, p. 9. (9) Ogilvie-Grant, Cat. Birds Brit. Mus., xxvi, 1898, p. 364. (10) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (11) Brewster, Birds Cape Region Lower Calif., 1902, p. 37. (12) Grinnell and Daggett, Auk, xx, 1903, pp. 32, 37. (13) Breninger, Auk, xxi, 1904, p. 219. (14) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (15) Linton, Condor, x, 1908, p. 82. (16) Linton, Condor, x, 1908, p. 126. (17) Wright, Condor, xi, 1909, p. 99. (18) Osburn, Condor, xi, 1909, p. 136. (19) Willett, Condor, xii, 1910, p. 173. (20) Osburn, Condor, xiii, 1911, p. 32. (21) Willett, Pac. Coast, Avif., 7, 1912, p. 20. (22) Wright and Snyder, Condor, xv, 1913, pp. 86, 90. (23) Grinnell, Pac. Coast Avif., 11, 1915, p. 30.

This, our commonest species of the genus, is to be found about the shores of all the islands and the adjacent mainland, breeding on or near all the islands that have suitable rocky promontories. There are perhaps a dozen colonies of these birds on the Coronados, distributed over all four of the islands. J. Grinnell and F. S. Daggett (*12*) found that they had completed nesting operations for the year there by August 7, 1902.

C. B. Linton (*15*) noted immense flocks on San Clemente during January and February, 1907. These flew back and forth daily, between their roosts on the northwest coast and the feeding grounds, and I observed the same thing there the first part of April, 1915. Linton took specimens in breeding plumage in February and March, and reported the species as breeding in small numbers on the northwest coast of the island.

J. Grinnell (*7*) states that there is a small colony on the north side of San Nicolas Island, and C. B. Linton (*21*) saw incomplete sets there April 3, 1910. They breed in limited numbers on several large detached rocks near Catalina. There are large rookeries on Santa Barbara Island, where I found fresh eggs



May 1, 1908. H. Wright (22) records a few pairs nesting on the cliffs of Anacapa, July 5, 1912. At Santa Cruz Island a small number nest near Scorpion Harbor, and they probably breed on or near Santa Rosa Island, but as there has been so little work done in this locality, this is merely a supposition on my part. On Prince Islet, San Miguel, G. Willett (19) found several large rookeries. In the morning of June 15, 1910, he passed a colony of about a hundred nests with eggs, but in the afternoon the gulls had left not a dozen eggs. He took a set of six there.

I believe that as a rule these birds begin nesting slightly in advance of the Farallon Cormorant. The nest is a rather compact but not bulky affair of sea weed, and is always placed in colonies on a low cliff or shelf of rock, from fifteen to a hundred or more feet above the water. From three to five eggs, and very rarely six, constitute a full set. At the approach of an intruder the young exhibit great stupidity, the half grown ones unconcernedly walking off a high ledge to fall on the rocks below, mortally disabled. During the winter they will often gather in flocks numbering thousands of individuals, to roost at night in some favorite spot, dispersing in the morning in quest of food. I have seen an incredible number in the early morning leaving a sand flat on which they had spent the night.

#### 40. **Phalacrocorax pelagicus resplendens** Audubon

##### BAIRD CORMORANT

*Graculus violaceus* var. *bairdi* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79.

*Phalacrocorax pelagicus resplendens* (2) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, p. 162. (3) Blake, Auk, iv, 1887, p. 329. (4) Streater, Orn. & Ool., XIII, 1888, p. 54. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 26. (6) Grinnell, Pasadena Acad. Sci., II, 1898, p. 9. (7) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (8) Linton, Condor, x, 1908, p. 83. (9) Linton, Condor, x, 1908, p. 126. (10) Osburn, Condor, XI, 1909, p. 137. (11) Willett, Pac. Coast Avif., 7, 1912, p. 20. (12) Wright and Snyder, Condor, xv, 1913, pp. 87, 90. (13) Grinnell, Pac. Coast Avif., 11, 1915, p. 30.

*Phalacrocorax violaceus* (14) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 23.

*Phalacrocorax pelagicus* (15) Ogilvie-Grant, Cat. Birds Brit. Mus., xxvi, 1898, p. 362.

Baird Cormorant (16) Beck, Bull. Cooper Orn. Club, I, 1899, p. 85. (17) Willett, Condor, XII, 1910, pp. 170, 172.

*P[halacrocorax]. pelagicus resplendens* (18) Breninger, Auk, XXI, 1904, p. 219.

*Phalacrocorax resplendens* (19) Willett, Condor, XII, 1910, p. 173.

Fairly plentiful resident among the islands, though not nearly as numerous as the last two forms. Rather rare in the southern part of the territory covered by this paper, but increasing in numbers towards the northern part. H. W. Henshaw (2) found them congregated in great numbers on the channel islands in the early days, but since that time they must have decreased, for at present I do not think that anyone could describe their numerical standing in such words.

I know of one rookery on the Coronados of perhaps a dozen scattered nests, and there may be others. C. B. Linton (8) records seeing a few pairs in breeding plumage near Mosquito Harbor, San Clemente, during March, 1907. Near a large detached rock off the southwest end of the same island, D. R. Dickey and

L. M. Huey saw several the last of March, 1915. I think it doubtful if the species breeds at Catalina, at least on the east side. J. Grinnell (5) found small numbers nesting on Santa Barbara Island in the spring of 1897, with but two or three nests in any one group. H. Wright (12) noted several small colonies above the entrance to the caves on Anacapa, July 6, 1912, and says that the birds were very shy indeed. R. H. Beck (16) recorded the species as breeding on the rock at Scorpion Harbor, Santa Cruz Island, in 1895, and C. B. Linton (9) saw both adults and birds of the year in the same locality during November and December, 1907. G. Willett (19) found them breeding commonly on the cliffs of San Miguel. June 19, 1910, some of the nests held young, but in most of them were eggs, a few of which proved to be fresh.

Nests of this cormorant are a good deal like those of the last as to construction, but are notable for the fact that they are just about inaccessible, being built in the niches of cliffs above the sea. The birds seem to stay in the open sea more than either of the two foregoing, and I have been informed that they bring up sea weed where there is none to be had within a hundred and sixty feet of the surface, so they are unusually expert divers.

41.

**Pelecanus californicus** Ridgway

## CALIFORNIA BROWN PELICAN

*Pelecanus fuscus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 275.

*Pelecanus [fuscus?] californicus* (3) Baird, Brewer and Ridgway, Water Birds N. Am., II, 1884, pp. 143 (140-2).

*Pelecanus californicus* (4) Blake, Auk, iv, 1887, p. 329. (5) Streater, Orn. & Ool., XIII, 1888, p. 54. (6) Anthony, Proc. Calif. Acad. Sci., 2d series, II, 1889, p. 85. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 26. (8) Grinnell, Pasadena Acad. Sci., II, 1898, p. 9. (9) Grinnell, Pac. Coast Avif., 3, 1902, p. 16. (10) Brewster, Birds Cape Region Lower Calif., 1902, p. 38. (11) Grinnell and Daggett, Auk, xx, 1903, pp. 32, 37. (12) Breninger, Auk, XXI, 1904, p. 219. (13) Reed, N. Am. Birds' Eggs, 1904, p. 67. (14) Linton, Condor, x, 1908, p. 83. (15) Linton, Condor, x, 1908, p. 126. (16) Wright, Condor, XI, 1909, p. 99. (17) Osburn, Condor, XI, 1909, p. 136. (18) Willett, Condor, XII, 1910, pp. 171, 173. (19) Burt, Condor, XIII, 1911, p. 166. (20) Willett, Pac. Coast Avif., 7, 1912, p. 21. (21) Wright and Snyder, Condor, xv, 1913, pp. 86, 90. (22) Grinnell, Pac. Coast Avif., 11, 1915, p. 31.

Brown Pelican (23) Holder, Museum, v, 1899, p. 71.

Pelican (24) Peyton, Oologist, xxx, 1913, p. 78.

Abundant resident throughout the region, but breeding on only a few islands. A large colony nests on the south end of the south island of the Coronados group, and another on north island. June 14, 1911, G. Willett (20) found about twenty-five pairs breeding on Santa Barbara Island, while July 2, 1912, H. Wright (21) reported three or four hundred birds with downy young at the same place. C. F. Holder (23) first recorded nests of this bird from Anacapa. The rookery seemed to him to be inaccessible, but there were four or five acres packed with the birds, and the amount of guano indicated that the colony was an old one. This was in August, 1898. Since that time the island has been occupied by the birds in some years, and vacant in others. H. Wright (20) found several

nests with young on Santa Cruz Island in July, 1909, and G. Willett (18) reported five nests of young on Prince Islet, San Miguel, June 15, 1910.

In several instances I have noted pelicans beginning to repair nests the last of April, while H. C. Burt (19) saw some at Anacapa flying with sea weed in their bills, March 17, 1911. This, coupled with other observations made by me farther south, in Mexico, indicates that the time for nest building and laying varies considerably in different colonies. The nests on the Coronados are made mostly out of sticks from a certain bush that grows there. L. M. Huey (MS) tells me that he has watched the pelicans gathering this material, and that they secure it in the same way that they fish, namely, by flying along and then diving at the bush, landing feet instead of head first, however, and in this way breaking the bush down. He affirms that he has seen opuntia cactus that had evidently been flattened down by the pelicans in the same manner, in mistake for the other bush. One can imagine the surprise of the bird after such a maneuver!

As the pelicans suffer much from the depredations of the gulls, fresh eggs from second layings may be found well into July. The young leave the nest when less than half the size of the parents, and it is quite ludicrous to watch the compact flocks of fluffy, solemn youngsters parading sedately about the rookeries. When the primaries are quite well grown, they frequently hop off a shelf of rock into one of the many patches of cactus, and it is not unusual to encounter one literally bristling with the spines. When able to fly, but before ever having tried to do so, they will sometimes take to the air at the approach of danger, and go careening out to sea on unsteady wings, then manage the turn, and come shooting back on the wind. They are unversed in the art of alighting, however, and sometimes hit the cliff full speed, which is a signal for every gull in sight to sail happily down to investigate the dying bird. When camped near the colonies, one may see a line or wedge of these great birds go silently by at any hour of the night, undoubtedly belated homecomers from some far fishing ground.

#### 42. **Fregata aquila** (Linnaeus)

##### MAN-O'-WAR-BIRD

*Tachypetes aquilus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79.

*Fregata aquila* (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 31.

J. G. Cooper (1) states that this species was said to occur at Catalina, but of course it could only have been a straggler in that locality. On June 29, 1913, L. M. Huey called the attention of F. Stephens, A. van Rossem, D. R. Dickey and myself, to an individual of this species that was soaring over the island towards the south. It was perfectly identified by all of us.

#### 43. **Mergus serrator** Linnaeus

##### RED-BREADED MERGANSER

*Mergus serrator* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 10. (2) Linton, Condor, xi, 1909, p. 193. (3) Willett, Pac. Coast Avif., 7, 1912, p. 22.

*Merganser serrator* (4) Linton, Condor, x, 1908, p. 126.

Fairly common winter visitant to the islands. J. Grinnell (1) noted birds

at Catalina in December, 1897, and I saw several lone individuals there the latter part of April, 1907. While at San Clemente from March 23 to April 11, 1915, I saw a single individual almost daily, and C. B. Linton (3) has noted the species there as late as May 3, 1909. During November and December, 1907, at Santa Cruz Island, the last mentioned writer (1) frequently saw it feeding among the tide pools.

44. **Dafila acuta** (Linnaeus)

PINTAIL

While in camp on San Clemente, April 4, 1915, a female of this species flew close over D. R. Diekey and myself. She acted in a peculiar way, circling about over the camp, and then flying high up the hillside along the shore. We judged that she was a wounded bird that had made her way to the island.

45. **Oidemia americana** Swainson

SCOTER

*Oidemia americana* (1) Grinnell, Pasadena Acad. Sci., II, 1898, p. 12. (2) Grinnell, Pac. Coast Avif., 3, 1902, p. 20. (3) A. O. U. Check-list, 3d ed., 1910, p. 80. (4) Willett, Pac. Coast Avif., 7, 1912, p. 26. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 38.

Occasional at the islands in winter. J. G. Cooper told J. Grinnell (2) that he had taken this species at Catalina.

46. **Oidemia deglandi** Bonaparte

WHITE-WINGED SCOTER

*Melanetta velvetina* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 274.

*Oidemia deglandi* (2) Grinnell, Pasadena Acad. Sci., II, 1898, p. 12. (3) Linton, Condor, x, 1908, p. 126. (4) Willett, Condor, XII, 1910, p. 173. (5) Willett, Pac. Coast Avif., 7, 1912, p. 26. (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 38.

Abundant in winter about the islands, a few non-breeders remaining all summer. The majority arrive the latter part of September and remain until May. F. Stephens (2) found it common at Catalina the latter part of March, 1893, and I have seen it repeatedly there during April. G. Willett (3) saw several at Santa Cruz Island during November, 1907, and (5) found immatures common at San Miguel, the middle of June, 1910.

47. **Oidemia perspicillata** (Linnaeus)

SURF SCOTER

*Pelionetta perspicillata* (1) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 23.

*Oidemia perspicillata* (2) Streater, Orn. & Ool., XIII, 1888, p. 54. (3) Grinnell, Pasadena Acad. Sci., II, 1898, p. 12. (4) Linton, Condor, x, 1908, p. 126. (5) Linton, Condor, XI, 1909, p. 193. (6) Willett, Condor, XII, 1910, p. 173. (7) Willett, Pac. Coast Avif., 7, 1912, p. 26.

Most numerous one of the genus, remaining with us all winter, and an occasional non-breeder spending the summer. C. B. Linton (5) saw several at Clemente during the winter of 1908, and D. R. Diekey and I saw a flock of five

there April 10, 1915. J. Grinnell (3) found it very numerous at Catalina during December, 1897, and I have noted it in abundance there throughout April. I have also seen a few near Santa Barbara Island the first of May. C. B. Linton (4) found adults and immatures to be common at Santa Cruz Island, November and December, 1907, and A. van Rossem and I saw them from time to time in the same locality during the latter part of April, 1911. G. Willett (6) recorded them as common at San Miguel Island, the middle of June, 1910, and C. P. Streater (1) stated that he saw immature birds there and was under the impression that they bred in the locality, which supposition is, of course, extremely unlikely. Willett (7) also saw a male at Santa Rosa Island, June 8, 1910. All of our scoters prefer the ocean in the vicinity of sandy beaches, and so are not nearly as common at the islands as they are along the neighboring mainland.

48. **Chen hyperboreus hyperboreus** (Pallas)

SNOW GOOSE

*Chen hyperboreus hyperboreus* (1) Dawson, Condor, xvii, 1915, p. 204.

While on Santa Cruz Island in April, 1915, W. L. Dawson (1) saw a pair of these birds that were kept in captivity at the ranch house. They were winged, of course, and had been taken from flocks numbering several thousand which visited the island during the winter of 1914.

49. **Anser albifrons gambeli** Hartlaub

WHITE-FRONTED GOOSE

*Anser gambeli* (1) Linton, Condor, x, 1908, p. 126.

C. B. Linton (1) found this goose abundant on Santa Rosa Island in November, 1907, and he (MS) informs me that the fishermen at Santa Cruz Island are in the habit of running over to Santa Rosa to get them for Christmas. I have been told by several fishermen that a goose, probably this one, is found on Anacapa in flocks during part of the winter.

50. **Ardea herodias herodias** Linnaeus

GREAT BLUE HERON

*Ardea herodias* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Blake, Auk, iv, 1887, p. 329. (3) Grinnell, Pasadena Acad. Sci., i, 1897, p. 26. (4) Breninger, Auk, xxi, 1904, p. 223. (5) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (6) Linton, Condor, x, 1908, p. 83. (7) Linton, Condor, x, 1908, p. 126. (8) Wright, Condor, xi, 1909, p. 100. (9) Wright and Snyder, Condor, xv, 1913, p. 91.

*Ardea herodias herodias* (10) Willett, Pac. Coast Avif., 7, 1912, p. 30.

*Ardea herodias oligista* (11) Oberholser, Proc. U. S. Nat. Mus., xliii, 1913, p. 553.

*Ardea herodias hyperonca* (12) Grinnell, Pac. Coast Avif., 11, 1915, p. 43.

Fairly common about all of the islands but evidently breeding on only a few of them. I have seen these birds all through the spring and early summer standing on the kelp beds in the vicinity of the Coronados.

From San Clemente, H. C. Oberholser (11) has described a subspecies, the

type being an almost adult male taken August 26, 1894. It is similar to the mainland bird, but smaller, and the describer says that in addition to the type locality, it probably occurs on Santa Cruz, San Nicolas, Anacapa and Catalina. Now I am very familiar with the Coronados Islands, having lived on them for as long as two months at a time, and I am morally certain that no herons breed there. Besides, I have seen one as far as five miles from the islands, flying towards the mainland. In addition, G. Willett (*MS*) says that he has seen them in flight between Anacapa and the mainland. If they fly back and forth from these two islands, it is reasonable to suppose that they do the same from the others, and if this is the case it is hard to believe that an island subspecies exists.

I have before me two Great Blue Herons from the islands, one from the collection of A. van Rossem, shot by him on San Clemente, September 30, 1908, the other, from my own collection, taken on Catalina by H. Wright, May 25, 1908. Although they are both males, and, as far as I can tell, near the age of Mr. Oberholser's type, I can see no difference to warrant separation of the island bird. Following are the average measurements of the eleven specimens of *A. h. hyperonca* from the Pacific slope of California as given by Mr. Oberholser in his original description of that subspecies, his measurements of the type of *oligista*, and the average of my two island specimens.

|                                   | Wing  | Tail  | Culmen | Tarsus | Toe <sup>1</sup> |
|-----------------------------------|-------|-------|--------|--------|------------------|
| 11 <i>A. h. hyperonca</i> .....   | 485.7 | 184.7 | 142.7  | 180.5  | 107.2            |
| type, <i>A. h. oligista</i> ..... | 433   | 187   | 149    | 184    | 101              |
| 2 skins from islands.....         | 492   | 182.5 | 148.7  | 182.3  | 113              |

<sup>1</sup>Middle toe without claw.

Some allowance should of course be made for two different people taking measurements, but even with a generous margin to allow for variation in this, it will be seen that my two birds have even longer wings and middle toes than the mainland ones, while the shortness of these two members was the chief claim to subspecific rank of the type of *oligista*.

C. B. Linton (*MS*) saw several Great Blue Herons at San Nicolas during January, 1911, and I have seen an occasional individual at Catalina at different times of the year. H. Wright (*g*) records one at Anacapa, July 5, 1912, and A. van Rossem and I saw a number at Santa Cruz in April, 1911.

In the vicinity of the islands these birds spend most of their time perched on the kelp beds waiting for fish. The kelp sinks under them to a certain extent, and they appear as if their legs were but half the length that they really are. Those that breed upon the islands build their nests in niches of the cliffs.

## 51. *Butorides virescens anthonyi* (Mearns)

### ANTHONY GREEN HERON

*Butorides virescens anthonyi* (*1*) Oberholser, Proc. U. S. Nat. Mus., XLII, 1912, p. 543.

H. C. Oberholser (*MS*) informs me that his record for this bird on the Coronados (*1*) is based on a specimen taken in that locality by A. W. Anthony, May 11, 1885. C. B. Linton (*MS*) tells me that he also secured a bird on Santa Cruz Island.

52. **Nycticorax nycticorax naevius** (Boddaert)

## BLACK-CROWNED NIGHT HERON

*Nycticorax nycticorax naevius* (1) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (2) Willett, Pac. Coast Avif., 7, 1912, p. 31.

E. A. Mearns (1) saw a bird of this species on San Clemente Island, August 22 to 29, 1894.

53. **Porzana carolina** (Linnaeus)

## SORA

*Porzana carolina* (1) Linton, Condor, xi, 1909, p. 193.

C. B. Linton (1) found the partly eaten remains of one of these birds on San Clemente Island during the winter of 1908.

54. **Fulica americana** Gmelin

## COOT

*Fulica americana* (1) Linton, Condor, x, 1908, p. 126.

But one record, that of a bird seen by C. B. Linton (1) December 18, 1907, at Prisoner's Harbor, Santa Cruz Island.

55. **Phalaropus fulicarius** (Linnaeus)

## RED PHALAROPE

*Crymophilus fulicarius* (1) Streater, Orn. & Ool., XIII, 1888, p. 54. (2) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (3) Linton, Condor, x, 1908, p. 126.

*Phalaropus fulicarius* (4) Willett, Pac. Coast Avif., 7, 1912, p. 33. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 48.

Abundant at certain times during the migrations about the islands. On April 10, 1911, I saw two of these birds feeding near the rocks of Catalina, and E. A. Mearns (2) took specimens at San Clemente, August 22 to 29, 1894. C. P. Streater (1) observed a number in the kelp fields near San Nicolas during the middle of the fall, and C. B. Linton and G. Willett (3) found them abundant in the vicinity of Anacapa and Santa Cruz islands until November 27. By December 5 the majority had left for the south.

56. **Lobipes lobatus** (Linnaeus)

## NORTHERN PHALAROPE

*Lobipes lobatus* (1) Willett, Pac. Coast Avif., 7, 1912, p. 34.

Abundant migrant in the open channel, but few are seen near the shores of the islands. C. B. Linton (1) took two birds from a large flock near Santa Cruz Island, October 21, 1908, and A. van Rossem and I saw a few in the same locality May 2, 1911.

57. **Recurvirostra americana** Gmelin

## AVOCET

*Recurvirostra americana* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 270.

H. W. Henshaw (1) reports that during the middle of June, 1875, on Santa Cruz Island, several of these birds had paired and were living on the beaches. He thought that they may have been breeding, but in this conclusion I believe that he may have been mistaken.

58. **Himantopus mexicanus** (Müller)

BLACK-NECKED STILT

*Himantopus mexicanus* (1) Grinnell, Pasadena Acad. Sci., 1, 1897, p. 26. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 49.

J. Grinnell (1) shot a male of this species May 25, 1897, that was standing at the edge of a pool on San Nicolas Island, and C. B. Linton (MS) secured one in the same locality.

59. **Macrorhamphus griseus scolopaceus** (Say)

LONG-BILLED DOWITCHER

*Macrorhamphus scolopaceus* (1) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141.

*Macrorhamphus griseus scolopaceus* (2) Willett, Pac. Coast Avif., 7, 1912, p. 35.

E. A. Mearns (1) reports having seen this bird on San Clemente Island, May 22 to 29, 1894.

60. **Pisobia bairdi** (Coues)

BAIRD SANDPIPER

*Pisobia bairdi* (1) Grinnell, Condor, XI, 1909, p. 139. (2) Willett, Pac. Coast Avif., 7, 1912, p. 36. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 50.

An immature male of this species was taken at Catalina, September 1, 1907, by H. Wright (1).

61. **Pisobia minutilla** (Vieillot)

LEAST SANDPIPER

*Actodromas minutilla* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 79.

*Tringa minutilla* (2) Linton, Condor, X, 1908, p. 126.

*Pisobia minutilla* (3) Linton, Condor, XI, 1909, p. 194.

Common during migration on the sandy beaches of the islands. At San Clemente, C. B. Linton (3) saw flocks of these birds, and took a few specimens in December, 1908. He (MS) also saw many at San Nicolas during January, 1911. J. G. Cooper (1) recorded it from Catalina, and Linton (2) met with it at Santa Cruz Island during November and December, 1907. In the same locality, May 1, 1911, A. van Rossem and I saw a flock of what we believed to be this species.

62. **Ereunetes mauri** Cabanis

WESTERN SANDPIPER

*Ereunetes mauri* (1) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (2) Linton, Condor, XI, 1909, p. 194. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 51.

Probably a fairly common migrant on the sandy beaches of the islands. E.



A. Mearns (1) shot some of these birds at San Clemente from August 22 to 29, 1894, and C. B. Linton (2) states that at the same place he met with it together with the last species during December, 1908.

63. **Calidris leucophaea** (Pallas)

SANDERLING

*Calidris arenaria* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 271. (2) Breninger, Auk, XXI, 1904, p. 222. (3) Linton, Condor, x, 1908, p. 126.

*Calidris leucophaea* (4) Linton, Condor, xi, 1909, p. 194. (5) Willett, Pac. Coast Avif., 7, 1912, p. 37. (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 51.

Common winter visitant to suitable parts of the islands. C. B. Linton (5) has found this species on San Nicolas as late as May 30. He (4) says that it is common during the winter at San Clemente, where Breninger (2) also found flocks in February, 1903. Linton (3) has noted it on Santa Cruz Island during November and December, 1907.

64. **Totanus melanoleucus** (Gmelin)

GREATER YELLOW-LEGS

*Totanus melanoleucus* (1) Streater, Orn. & Ool., XIII, 1888, p. 53. (2) Osburn, Condor, xi, 1909, p. 137.

C. P. Streater (1) reports having seen one of these birds on Santa Cruz Island in 1886. No specimen was obtained, and it is with some hesitation that I include the species. As it is a common migrant on the mainland, however, and not hard to identify in life, I have ventured to do so.

65. **Helodromas solitarius cinnamomeus** (Brewster)

WESTERN SOLITARY SANDPIPER

*Totanus solitarius* (1) Streater, Orn. & Ool., XIII, 1888, p. 53.

*Helodromas solitarius cinnamomeus* (2) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141.

(3) Willett, Pac. Coast Avif., 7, 1912, p. 38.

Rather rare migrant. C. P. Streater (1) met with this bird on both San Nicolas and Santa Cruz islands in 1886, and E. A. Mearns (2) reported it from San Clemente the latter part of August, 1894.

66. **Catoptrophorus semipalmatus inornatus** (Brewster)

WESTERN WILLET

*Symphemia semipalmata inornata* (1) Streater, Orn. & Ool., XIII, 1888, p. 54.

*Catoptrophorus s[emipalmatus]. inornatus* (2) Willett, Condor, XII, 1910, p. 173.

*Catoptrophorus semipalmatus inornatus* (3) Willett, Pac. Coast Avif., 7, 1912, p. 38.

Regular migrant to suitable parts of the islands. C. P. Streater (1) reported it from San Nicolas in the fall of 1886, and C. B. Linton (MS) met with it upon the same island during January, 1911. G. Willett (2) records a flock of ten or twelve birds seen at the west end of San Miguel, June 17, 1910.

67.

**Heteractitis incanus** (Gmelin)

## WANDERING TATTLER

*Heteroscelus incanus* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 272. (2) Baird, Brewer and Ridgway, Water Birds N. Am., I, 1884, p. 291.

*Heteractitis incanus* (3) Blake, Auk, IV, 1887, p. 329. (4) Sharpe, Cat. Birds Brit. Mus., XXIV, 1896, p. 455. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 26. (6) Grinnell, Pasadena Acad. Sci., II, 1898, p. 18. (7) Grinnell and Daggett, Auk, XX, 1903, pp. 33, 37. (8) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (9) Linton, Condor, X, 1908, p. 83. (10) Linton, Condor, X, 1908, p. 126. (11) Grinnell, Condor, X, 1908, p. 130. (12) Wright, Condor, XI, 1909, p. 100. (13) Osburn, Condor, XI, 1909, p. 137. (14) Willett, Condor, XII, 1910, p. 173. (15) Howell, Condor, XII, 1910, p. 186. (16) Burt, Condor, XIII, 1911, p. 164. (17) Willett, Pac. Coast Avif., 7, 1912, p. 38. (18) Grinnell, Pac. Coast Avif., 11, 1915, p. 53.

Wandering Tattler (19) Willett, Condor, XII, 1910, p. 171.

Common migrant to all the islands, and recorded during every month of the year. Most abundant from August to the first part of May. Almost every ornithologist who has visited the islands in winter has met with this bird, and there are about a dozen records for non-breeders during the summer months. They are fond of frequenting the foam-sprayed rocks off shore, singly or in twos, and not infrequently in the company of Black Turnstones. Here, when observed, they will squat motionless or steal over a ridge of rock.

68.

**Actitis macularia** (Linnaeus)

## SPOTTED SANDPIPER

*Actitis macularia* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 26. (2) Grinnell, Pasadena Acad. Sci., II, 1898, p. 18. (3) Grinnell and Daggett, Auk, XX, 1903, pp. 33, 37. (4) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (5) Linton, Condor, X, 1908, p. 83. (6) Linton, Condor, X, 1908, p. 126. (7) Grinnell, Condor, X, 1908, p. 130. (8) Osburn, Condor, XI, 1909, p. 137. (9) Willett, Pac. Coast Avif., 7, 1912, p. 39.

*Actitis macularius* (10) Grinnell, Pac. Coast Avif., 11, 1915, p. 53.

Common on the islands in winter, and, as with the last mentioned species, occurring during every month of the year. On the Coronados I have seen them repeatedly in the spring and occasionally during the early summer; J. Grinnell and F. S. Daggett (3) note two seen August 6, 1902, in the same locality. C. B. Linton (5) found the species fairly common at Clemente during the fall and winter of 1907, and I saw a bird on the rocks there March 29, 1915. J. Grinnell (2) reports it as tolerably common at Catalina in December, 1897, and I have seen individuals both here and at Santa Barbara Island in late April and early May. Grinnell (7) also saw several at Anacapa, September 4, 1903; Linton (6) found numbers at Santa Cruz Island in November and December, 1907, where A. van Rossem and I noted them during the latter part of April, 1911.

69.

**Numenius hudsonicus** Latham

## HUDSONIAN CURLEW

*Numenius hudsonicus* (1) Grinnell and Daggett, Auk, XX, 1903, pp. 33, 37. (2) Breninger, Auk, XXI, 1904, p. 222. (3) Linton, Condor, X, 1908, p. 126. (4) Cooke, Bull. U. S. Biol. Surv., XXXV revised, 1912, p. 74. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 54.

Probably a regular but not very common migrant. J. Grinnell and F. S. Daggett (1) observed two of this species flying over the Coronados, August 7, 1902; Breninger (2) noted a few at San Clemente in February, 1903; C. B. Linton (3) took a bird December 8, 1907, at Santa Cruz, and (MS) has also seen birds on San Nicolas.

70. **Squatarola squatarola** (Linnaeus)

BLACK-BELLIED PLOVER

*Squatarola helvetica* (1) Baird, Brewer and Ridgway, Water Birds N. Am., 1, 1884, p. 136. *Squatarola squatarola* (2) Breninger, Auk, XXI, 1904, p. 218. (3) Linton, Condor, x, 1908, p. 126. (4) Willett, Pac. Coast Avif., 7, 1912, p. 39.

Rather common migrant at suitable localities. C. B. Linton (4) saw one of these birds in full summer plumage at San Nicolas Island, June 1, 1910, and G. F. Breninger (2) observed thousands on the shores of San Clemente in February, 1903. J. G. Cooper (1) took a female on Catalina, November 1, 1861, now in the Museum of Vertebrate Zoology at Berkeley, and C. B. Linton (3) found it common on Santa Cruz during November and December, 1907, large flocks being seen feeding on the mesas one half to one mile inland.

71. **Oxyechus vociferus** (Linnaeus)

KILLDEER

*Aegialitis vocifera* (1) Linton, Condor, x, 1908, p. 126.

Straggles to the islands in the winter. I saw a lone individual of this species, March 25, 1915, at a little pond on the top of San Clemente Island. C. B. Linton (MS) noted several on San Nicolas in January, and a number on Santa Cruz during November and December, 1907.

72. **Aegialitis semipalmata** (Bonaparte)

SEMIPALMATED PLOVER

*Aegialitis semipalmata* (1) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (2) Willett, Pac. Coast Avif., 7, 1912, p. 40.

Evidently a rather rare winter straggler from the mainland. E. A. Mearns (1) took this species on San Clemente the latter part of August, 1894, and C. B. Linton (2) saw it at San Nicolas, April 18 and May 6, 1910.

73. **Aegialitis nivosa** Cassin

SNOWY PLOVER

*Aegialitis nivosa* (1) Grinnell, Pasadena Acad. Sci., 1, 1897, p. 26. (2) Linton, Condor, x, 1908, p. 83. (3) Linton, Condor, x, 1908, p. 126. (4) Willett, Pac. Coast Avif., 7, 1912, p. 40. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 55.

Found on most of the sandy beaches of the islands, where apparently breeding. C. B. Linton (2) saw a flock of fifteen or twenty birds on San Clemente, October 15, 1907, and says (MS) that they breed on San Nicolas. He (3) also reported it as fairly common during the late fall of 1907 at Santa Cruz Island. O. W. Howard (4) has seen it at San Miguel during the summer months.

74. **Podasocys montanus** (J. K. Townsend)

## MOUNTAIN PLOVER

*Podasocys montana* (1) Breninger, Auk, xxi, 1904, p. 222.

*Podasocys montanus* (2) Willett, Pac. Coast Avif., 7, 1912, p. 41. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 56.

G. F. Breninger (1) took one of these birds on San Clemente in February, 1903, and states that he was informed that they wintered on the island in large numbers. If this was the case they are undoubtedly much rarer there at this time than formerly, as is also true in the lowlands of the adjacent mainland.

75. **Aphriza virgata** (Gmelin)

## SURF-BIRD

*Aphriza virgata* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Baird, Brewer and Ridgway, Water Birds N. Am., 1, 1884, p. 127. (3) Grinnell, Pac. Coast Avif., 3, 1902, p. 28. (4) Willett, Pac. Coast Avif., 7, 1912, p. 41. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 56.

Rare migrant on the islands though probably commoner there than on the mainland opposite. C. B. Linton (1) took an adult on San Nicolas, May 15, 1909, and J. G. Cooper (1) saw birds on Santa Barbara and Catalina islands which he took to be of this species. L. M. Loomis (1) says that R. H. Beck secured several on San Miguel from March 13 to April 1, 1903. My experience with this species on the mainland leads me to believe that it is a rapid migrant, and in the habit of making long flights, touching usually only at certain favorable promontories and headlands in its line of travel. If this is the case, the islands should be favorite resting places for the birds, and I believe that systematic work on the rocks of the Santa Barbara group at the right season would prove them to be not so rare as they are usually considered. Indications are that during the spring, the first week in May is the most likely time to look for them.

76. **Arenaria interpres morinella** (Linnaeus)

## RUDDY TURNSTONE

*Arenaria interpres morinella* (1) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (2) Grinnell, Condor, xi, 1909, p. 139. (3) Willett, Pac. Coast Avif., 7, 1912, p. 41. (4) Wright and Snyder, Condor, xv, 1913, p. 91.

Probably a regular though not a plentiful migrant. E. A. Mearns (1) took this bird at San Clemente in late August, 1894, and C. B. Linton (3) found it fairly common on the rocks of San Nicolas from March 30 to May 11, 1910. H. Wright (2) shot an immature male at Catalina, September 3, 1907, and (4) saw one at Pelican Harbor, Santa Cruz Island, July 8, 1912. C. B. Linton (3) noted two birds on San Miguel, October 15, 1910.

77. **Arenaria melanocephala** (Vigors)

## BLACK TURNSTONE

*Stripsilas melanocephalus* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 270.

*Arenaria melanocephala* (2) Blake, Auk, iv, 1887, p. 329. (3) Streater, Orn. & Ool., xiii,

1888, p. 53. (4) Sharpe, Cat. Birds Brit. Mus., xxiv, 1896, pp. 102, 729. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 26. (6) Grinnell, Pasadena Acad. Sci., II, 1898, p. 19. (7) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 159. (8) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (9) Breninger, Auk, xxi, 1904, p. 218. (10) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (11) Linton, Condor, x, 1908, p. 83. (12) Linton, Condor, x, 1908, p. 126. (13) Grinnell, Condor, x, 1908, p. 130. (14) Wright, Condor, xi, 1909, p. 100. (15) Osburn, Condor, xi, 1909, p. 137. (16) Willett, Condor, xii, 1910, p. 173. (17) Cooke, Bull. U. S. Biol. Surv., xxxv revised, 1912, p. 99. (18) Willett, Pac. Coast Avif., 7, 1912, p. 42.

An abundant migrant, and common throughout the winter. Non-breeders occasionally seen all through the summer. The majority arrive about the middle of August and leave the middle of May. Breeding plumage is assumed towards the last of April. This is by far the most abundant shore bird on the islands, much more so than on the mainland, occurring in flocks of as many as thirty individuals, and frequenting the rockiest shores.

## 78. *Haematopus frazari* Brewster

### FRAZAR OYSTER-CATCHER

*Haematopus palliatus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 8. (2) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (3) Baird, Brewer and Ridgway, Water Birds N. Am., I, 1884, p. 113.

*Haematopus frazari* (4) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 161. (5) Brewster, Birds Cape Region Lower Calif., 1902, p. 74. (6) Grinnell, Pac. Coast Avif., 3, 1902, p. 29. (7) Grinnell and Daggett, Auk, xx, 1903, pp. 29, 33, 37. (8) Osburn, Condor, xiii, 1911, p. 76. (9) Cooke, Bull. U. S. Biol. Surv., xxxv revised, 1912, p. 42. (10) Willett, Pac. Coast Avif., 7, 1912, p. 42. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 57.

Rare straggler from farther south during the late summer. J. Grinnell (7) took one specimen on the Coronados, August 6, 1902, and saw another the following day. J. G. Cooper (2) shot a female on Santa Barbara Island, June 2, 1863, that held an egg nearly ready to be laid. Although this would indicate that the bird was breeding in the vicinity, we have no cause to suppose that the species has bred within our range since that time at least.

## 79. *Haematopus bachmani* Audubon

### BLACK OYSTER-CATCHER

*Haematopus niger* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 79. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 270. (3) Baird, Brewer and Ridgway, Water Birds N. Am., I, 1884, p. 116. (4) Streater, Proc. Sta. Barbara Soc. Nat. Hist., I, 1887, p. 22. (5) Sharpe, Cat. Birds Brit. Mus., xxiv, 1896, p. 121.

*Haematopus bachmani* (6) Blake, Auk, iv, 1887, p. 329. (7) Streater, Orn. & Ool., xiii, 1888, p. 53. (8) Brewster, Birds Cape Region Lower Calif., 1902, p. 75. (9) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (10) Linton, Condor, x, 1908, p. 126. (11) Grinnell, Condor, x, 1908, p. 130. (12) Wright, Condor, xi, 1909, p. 100. (13) Osburn, Condor, xi, 1909, p. 137. (14) Willett, Condor, xii, 1910, p. 173. (15) Osburn, Condor, xiii, 1911, p. 32. (16) Burt, Condor, xiii, 1911, p. 164. (17) Willett, Pac. Coast Avif., 7, 1912, p. 42. (18) Wright and Snyder, Condor, xv, 1913, pp. 87, 91. (19) Grinnell, Pac. Coast Avif., 11, 1915, p. 57.

*Haematopus bachmani* (20) Streater, Orn. & Ool., xiii, 1888, p. 54.

Black Oystercatcher (21) Swarth, Bull. Cooper Orn. Club, I, 1899, p. 85. (22) Willett, Condor, XII, 1910, p. 171.

Fairly common resident on some of the islands. There were at least four pairs of these birds nesting on the Coronados in 1910, and I several times encountered the downy young after the middle of June. Breeds on the Coronados, Santa Barbara, Anacapa, Santa Cruz, San Miguel and Santa Rosa islands. Most plentiful on the last, where G. Willett (14) took five sets of eggs, June 17, 1910.

Data would seem to indicate that these birds do not lay much before the middle of May. Usually three and more rarely four eggs are laid. In winter the legs and feet are yellow, but towards spring they become bright red. Certain rocky points are selected by the birds, and to these are often brought the barnacles which they pry off the rocks. These are worked over at leisure, and at one such depot on the Coronados which I examined, there was fully a bushel of shells.

## 80. *Lophortyx californica vallicola* (Ridgway)

### VALLEY QUAIL

- Lophortyx californicus* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 79. (2) Cooper, Land Birds Calif., I, 1870, p. 550. (3) Henshaw, Rep. Wheeler Surv., 1876, p. 266.
- Callipepla californica vallicola* (4) Grinnell, Pasadena Acad. Sci., I, 1897, p. 12. (5) Grinnell, Auk, XV, 1898, p. 234.
- Lophortyx californicus vallicola* (6) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 229. (7) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (8) Wright, Condor, XI, 1909, p. 100. (9) Howell, Condor, XII, 1910, p. 187.
- Lophortyx catalinensis* (10) Grinnell, Auk, XXIII, 1906, p. 262. (11) [Childs], Warbler, III, 1907, p. 1. (12) Richardson, Condor, XI, 1908, p. 66. (13) Grinnell, Condor, X, 1908, p. 94. (14) A. O. U. Committee, Auk, XXV, 1908, p. 391.
- Lophortyx* sp ? (15) Osburn, Condor, XI, 1909, p. 137.
- Lophortyx californica vallicola* (16) Willett, Pac. Coast Avif., 7, 1912, p. 43. (17) Grinnell, Pac. Coast Avif., 11, 1915, p. 59.
- Lophortyx californica catalinensis* (18) Grinnell, Pac. Coast Avif., 8, 1912, p. 10. (19) Grinnell, Pac. Coast Avif., 11, 1915, p. 59.

Rather rare on the Coronados; common on Catalina. There are at present a few pairs on south island of the Coronados. L. M. Huey (MS) remembers years ago to have heard talk of a Mr. Babcock of San Diego establishing a hunting preserve upon the island, and believes that the birds were introduced at that time. They now seem to have a rather precarious foothold there, and it is likely that Duck Hawks and wild house cats will exterminate them in the near future. In coloration, individuals may be found which somewhat approach *californica*, but the majority have the markings of *vallicola*. It is not improbable that a part of the birds which were liberated, were of each race. They are essentially the same as birds from the mainland, four birds from my collection differing only to a slight degree in having shorter bills and middle toes, and longer tails, an insufficient difference to warrant separation.

Mr. Howland of San Clemente Island, tells me that there were two or three dozen birds liberated there in 1913, but that he has not seen any of them very recently. G. Willett (16), however, records the species previous to that time (in 1912) as occasional on San Clemente, so that introduction may have taken place at an earlier period.

The Catalina quail was separated by J. Grinnell (10), the type being a bird collected November 25, 1904. He says that it is about nine per cent larger than *vallicola*, and darker and more brownish dorsally than *californica*. Tail longer, bill heavier, toes and tarsus stouter, than in either mainland race. It was not accepted by the A. O. U. Committee (11), but all the birds which I have seen could be easily told from either of the mainland forms, and I believe it to be a good subspecies. They are abundant on the island. A half finished nest found by C. H. Richardson (12) in April, 1907, differed in no manner from that of mainland *vallicola*.

H. W. Henshaw (3) states that quail were at one time introduced on Santa Cruz Island, but as none have been taken there as far as I know, they have probably disappeared, and there is no way of knowing whether they were *californica* or *vallicola*.

81. **Zenaidura macroura marginella** (Woodhouse)

WESTERN MOURNING DOVE

*Zenaidura carolinensis* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Richardson, Condor, x, 1908, p. 66.

*Zenaidura macroura* (3) Blake, Auk, iv, 1887, p. 329. (4) Keeler, Zoe, i, 1891, p. 339. (5) Grinnell, Pasadena Acad. Sci., i, 1897, pp. 5, 9, 13. (6) Grinnell, Auk, xv, 1898, p. 234. (7) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (8) Linton, Condor, x, 1908, p. 83. (9) Linton, Condor, x, 1908, p. 127.

*Zenaidura macroura marginella* (10) Mearns, Auk, xxviii, 1911, p. 490. (11) A. O. U. Committee, Auk, xxix, 1912, p. 381. (12) Wright and Snyder, Condor, xv, 1913, p. 91. (13) Grinnell, Pac. Coast Avif., 11, 1915, p. 62. (14) Ridgway, Birds North & Mid. Am., vii, 1916, p. 347.

*Zenaidura macroura carolinensis* (15) Willett, Pac. Coast Avif., 7, 1912, p. 44.

Rather common resident of certain of the islands. J. Grinnell (5) found this bird quite numerous near the lower end of San Clemente during the spring of 1897. Twenty or thirty of them roosted in a small clump of cherry trees in a ravine, coming to it just at dusk. Two nests were found by him on June 3 and 6, respectively, both being situated on horizontal branches of wild cherry. In the treeless northern part of the island, however, they are distinctly rare, and I saw but a single individual during a three weeks stay in the spring of 1915.

I have noted them in some numbers on Catalina, and C. H. Richardson (2) found that they pair in April there. J. Grinnell (5) saw about a dozen birds on San Nicolas in May, 1897, and remarks that a specimen secured is very much darker than any he had seen from the mainland. He also saw about the same number on Santa Barbara Island in May, 1897, but on the first of that month, 1908, I could find but a single bird in the locality. This is such a small barren island that one feels surprised at meeting these birds. They, in addition to some of the other land birds, must get their supply of moisture from the ice plant which grows so abundantly.

A. van Rossem and I found doves to be common on Santa Cruz the latter part of April, 1911, where they seemed partial to the upper edges of the bare grass lands, and to the borders of the little canyons. Here H. Wright (12) found a nest containing a single egg, July 7, 1912.

82. **Circus hudsonius** (Linnaeus)

## MARSH HAWK

*Circus hudsonius* (1) van Rossem, Condor, xi, 1909, p. 208. (2) Burt, Condor, XIII, 1911, p. 166. (3) Willett, Pac. Coast Avif., 7, 1912, p. 46.

Evidently a straggler to the islands. A. van Rossem (1) shot a female on the Coronados, April 6, 1909; H. C. Burt (2) took an immature male on Anacapa, March 15, 1911; and C. B. Linton (MS) tells me that he has seen the species on Santa Cruz.

83. **Accipiter velox** (Wilson)

## SHARP-SHINNED HAWK

*Accipiter velox* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (2) Richardson, Condor, x, 1908, p. 66. (3) Linton, Condor, xi, 1909, p. 194. (4) Willett, Pac. Coast Avif., 7, 1912, p. 46.

Probably not rare during the fall, winter and early spring. On San Clemente, C. B. Linton (3) saw several of these birds during December, 1908; C. H. Richardson (2) recorded one from Catalina, April 19, 1905; and J. Mailliard (1) lists it as having occurred on Santa Cruz in April, 1908.

84. **Accipiter cooperi** (Bonaparte)

## COOPER HAWK

*Accipiter cooperi* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (2) Howell and van Rossem, Condor, XIII, 1911, p. 209. (3) Willett, Pac. Coast Avif., 7, 1912, p. 46. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 64.

Recorded only from Santa Cruz Island, where I believe it to be resident in small numbers. J. Mailliard (1) lists the species from that locality during April, 1908, and on April 25, 1911, I (2) saw a pair at the lower edge of the pines which acted very much as if they had a nest near by.

85. **Buteo borealis calurus** Cassin

## WESTERN RED-TAIL

*Buteo borealis calurus* (1) Grinnell, Auk, xv, 1898, p. 234. (2) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (3) Breninger, Auk, XXI, 1904, p. 220. (4) Richardson, Condor, x, 1908, p. 66. (5) Linton, Condor, x, 1908, p. 83. (6) Linton, Condor, x, 1908, p. 127. (7) Grinnell, Pac. Coast Avif., 11, 1915, p. 65.

Fairly common resident of the larger islands. C. B. Linton (5) says that several pairs were nesting on San Clemente in 1907, and L. M. Huey (MS) saw a bird there March 25, 1915. I have found it common in the early spring at Catalina, and on April 11, 1911, discovered in a tree a nest that held two pipped eggs. J. Grinnell (1) saw two or three every day when he was there in December, 1897. C. B. Linton (6) noted several on Santa Cruz during November and December, 1907, and A. van Rossem and I saw one there May 1, 1911.



86. **Buteo swainsoni** Bonaparte

## SWAINSON HAWK

*Buteo montanus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77.

*Buteo swainsoni* (2) Howell and van Rossem, Condor, xiii, 1911, p. 209. (3) Willett, Pac. Coast Avif., 7, 1912, p. 47. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 66.

Occurs on two of the islands at least. J. G. Cooper (1) says that the species was present at Catalina, and F. S. Daggett (3) found it common there from August 1 to 16, 1898, one specimen having been taken. I (2) obtained a good view of one on Santa Cruz, April 30, 1911.

87. **Haliaeetus leucocephalus leucocephalus** (Linnaeus)

## BALD EAGLE

*Haliaeetus leucocephalus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77. (2) Cooper, Land Birds Calif., i, 1870, p. 452. (3) Henshaw, Rep. Wheeler Surv., 1876, p. 264.

*Haliaeetus leucocephalus* (4) Blake, Auk, iv, 1887, p. 329. (5) Streater, Orn. & Ool., xiii, 1888, p. 53. (6) Belding, Land Birds Pac. Dist., 1890, p. 41. (7) Keeler, Zoe, i, 1891, p. 339. (8) Grinnell, Pasadena Acad. Sci., i, 1897, pp. 5, 9, 13. (9) Grinnell, Auk, xv, 1898, p. 234. (10) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 42. (11) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (12) Breninger, Auk, xxi, 1904, p. 219. (13) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (14) Richardson, Condor, x, 1908, p. 66. (15) Linton, Condor, x, 1908, p. 83. (16) Grinnell, Condor, x, 1908, p. 130. (17) Burt, Condor, xiii, 1911, p. 164. (18) Howell and van Rossem, Condor, xiii, 1911, p. 209.

*Haliaeetus leucocephalus leucocephalus* (19) Grinnell, Pac. Coast Avif., 3, 1902, p. 33. (20) Linton, Condor, x, 1908, p. 127. (21) Willett, Pac. Coast Avif., 7, 1912, p. 48. (22) Wright and Snyder, Condor, xv, 1913, p. 86. (23) Grinnell, Pac. Coast Avif., 11, 1915, p. 67.

Bald Eagle (24) Willett, Condor, xii, 1910, p. 171.

Common resident of the Santa Barbara group. J. Grinnell and F. S. Daggett (11) saw an eagle on the Coronados, August 6, 1902, and were told that a pair of them had a nest. One of these birds was later killed, and during my several visits since 1910 I have never seen one.

D. R. Diekey, L. M. Huey and I found them numerous on San Clemente in the spring of 1915, and a pair that occupied an accessible nest still had eggs April 3. C. B. Linton (15) says that scattered about the base of the cliffs where the nests were situated, were numerous skeletons of sheep and young lambs, but Mr. Howland told us that during fifteen years of almost continued residence on the island, he had never seen an eagle carrying a lamb but once, and that was one that had died a natural death. He was quite sure that they did not molest the sheep at all. Worked into the material that formed the above nest found by Mr. Diekey, was the desiccated remains of a whole fox.

Eagles are reported as abundant on San Nicolas, and J. G. Cooper (2) states that on July 9, in the sixties, he saw more than thirty birds in immature plumage soaring about the north end of Catalina. A number are killed here annually by tourists and shepherders, until now they are not quite so abundant. Still, several individuals may be seen at almost any time, and many of their nests are on

the cliffs. These are sometimes also built in the wind-blown trees near the precipices.

I have seen eagles about Santa Barbara Island, as have others, but as the island is rather small, I think it probable that there is but one resident pair. Several pairs are resident on Anacapa, and it is interesting to note, as H. C. Burt (17) remarks, that all the sticks which enter into the construction of nests on this island, must laboriously be carried across five miles of sea from Santa Cruz Island. On the latter island they are said to kill lambs occasionally, and so are undoubtedly shot by the herders at every opportunity. A. van Rossem and I (18) found that most of the birds nested on the sea cliffs, but one nest was found in a large tree, well back in a canyon. This nest, on May 2, 1911, held a single young the size of a hen.

The Bald Eagle occurs on San Miguel and undoubtedly on Santa Rosa as well.

The majority would seem to lay the first part of February, but fresh eggs may be found until late March.

88.

**Falco mexicanus** Schlegel

## PRAIRIE FALCON

*Falco mexicanus* (1) Streater, Orn. & Ool., XIII, 1888, p. 53. (2) Keeler, Zoe, I, 1891, p. 340.

Both C. P. Streater (1) and C. A. Keeler (2) record the Prairie Falcon from San Miguel, but no one else has since found it.

89.

**Falco peregrinus anatum** Bonaparte

## DUCK HAWK

*Falco communis* var. *anatum* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 262.

*Falco nigripes* (2) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 77. (3) Cooper, Land Birds Calif., I, 1870, p. 456.

*Falco peregrinus anatum* (4) Belding, Land Birds Pac. Dist., 1890, p. 42. (5) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (6) Breninger, Auk, XXI, 1904, p. 220. (7) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (8) Linton, Condor, X, 1908, p. 83. (9) Linton, Condor, X, 1908, p. 127. (10) Wright, Condor, XI, 1909, p. 100. (11) Howell, Condor, XII, 1910, p. 186. (12) Burt, Condor, XIII, 1911, p. 166. (13) Willett, Pac. Coast Avif., 7, 1912, p. 49. (14) Wright and Snyder, Condor, XV, 1913, p. 91. (15) Grinnell, Pac. Coast Avif., 11, 1915, p. 67.

*Falco anatum anatum* (16) Grinnell and Daggett, Auk, XX, 1903, pp. 33, 37.

Duck Hawk (17) Willett, Condor, XII, 1910, p. 171.

Common resident of all the islands. At least three and probably four pairs of these birds breed on the Coronados. During late March and early April, 1915, on San Clemente, I repeatedly saw a pair, but was unable to locate their nesting site. G. Willett (13) took a set of four eggs on Catalina, April 8, 1904, and I have observed several of the birds on the northwest part of the island. I flushed a pair from the cliff on the seaward side of Santa Barbara Island, where they undoubtedly had a nest of young, May 1, 1908, and H. C. Burt (12) noted a pair on Anacapa. On Santa Cruz, O. W. Howard (13) collected a set April 5, 1906,

and C. B. Linton (9) says it is quite common there. Willett (17) found Duck Hawks to be common on San Miguel the middle of June, 1910.

Where there are colonies of small pelagic birds, these falcons are the commonest. They usually nest on inaccessible cliffs, but on north island of the Coronados group, they breed on ledges in the caves of the hillsides, and are easily accessible without a rope. A. van Rossem (MS) found a set of eggs there that were deposited on a bare ridge close to a path. Fresh eggs may be looked for during the last half of March and first of April.

J. Grinnell and F. S. Daggett (16), on the Coronados, found skins of the Western Gull turned wrong side out over the head, leaving the skeletons picked clean, and believe that the hawks were responsible. H. Linton and G. Willett (9) saw one take a Red Phalarope from the kelp near the shore of Santa Cruz Island. First one and then another of a pair of falcons chased the little fellow until he was tired out. C. B. Linton (9) states that Black Turnstones are a favorite prey. As previously stated, they do great damage among the colonies of petrels, auklets and murrelets during the nesting season, while in winter, not even that expert diver the Rhinoceros Auklet is immune from their successful attacks. I have found that when the young Duck Hawks are thoroughly strong on the wing, the majority forsake the islands, and probably spend the rest of the season along the mainland coast. On the Coronados, June 8, 1913, A. van Rossem shot an immature bird which tumbled down a cliff. As we were approaching it in a skiff two hours later, an adult arose from the carcass, and upon examination we found that the whole back and one wing had been eaten away, so the species evidently has cannibalistic tendencies.

90. **Falco columbarius columbarius** Linnaeus

PIGEON HAWK

*Falco columbarius* (1) Linton, Condor, x, 1908, p. 127.

Rather rare winter visitant. While D. R. Diekey was removing a fox from a trap on San Clemente Island, March 30, 1915, a pair of these birds circled closely around him for two or three minutes. He says that there could have been no mistake in identification, and from then until we left, April 11, we several times saw what were evidently the same birds. C. B. Linton (1) noted a few in the canyons of Santa Cruz Island during November and December, 1907.

91. **Falco sparverius phalaena** (Lesson)

DESERT SPARROW HAWK

*Falco sparverius deserticolus* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44.

*Falco sparverius* (2) Linton, Condor, x, 1908, p. 83. (3) Wright and Snyder, Condor, xv, 1913, p. 91.

*Falco sparverius phalaena* (4) Linton, Condor, x, 1908, p. 127. (5) Osburn, Condor, xi, 1909, p. 137. (6) Burt, Condor, XIII, 1911, p. 166.

Sparrow Hawk (7) Willett, Condor, XII, 1910, p. 172.

Reported from several islands, and probably resident. C. B. Linton (MS) says that he has seen these birds on San Nicolas Island; he (2) recorded them as occasional on San Clemente, in 1907. H. C. Burt (6) reported a pair on Ana-

capa, March 15, 1911, and A. van Rossem (*MS*) noted two on Santa Cruz, April 25 of the same year. In the latter locality Linton (4) secured a pair during December, 1907, and G. Willett (7) saw the wings of a female that was shot on San Miguel in 1910.

92. **Pandion haliaëtus carolinensis** (Gmelin)

OSPREY

*Pandion carolinensis* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77. (2) Grinnell, Pac. Coast Avif., 3, 1902, p. 34. (3) Linton, Condor, x, 1908, p. 127.  
*Pandion haliaëtus carolinensis* (4) Streater, Orn. & Ool., xiii, 1888, p. 53.  
*Pandion haliaëtus carolinensis* (5) Belding, Land Birds Pac. Dist., 1890, p. 46. (6) Grinnell, Pasadena Acad. Sci., 1, 1897, pp. 9, 14. (7) Breninger, Auk, xxi, 1904, p. 219. (8) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (9) Linton, Condor, x, 1908, p. 83. (10) Willett, Pac. Coast Avif., 7, 1912, p. 49. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 69.

Fairly common breeder on some of the islands, but the majority seem to winter south of us. I think it doubtful if any of these birds nest on the Coronados, and have seen but one in that locality; this on June 30, 1913. We noted a good many at San Clemente in the early spring of 1915, and were told of a number of nests; C. B. Linton (9) says that they are plentiful at San Nicolas. Present in some numbers at Catalina, but not as abundant as formerly, owing to the predations of the tourists. Still every detached rock of any height has its resident pair. C. P. Streater (4) reported the species from Santa Cruz in 1886, and Linton (3) noted one bird there, November 20, 1907. These two are the northernmost island records, and it is not believed that the species breeds on the islands, north of Catalina. The time for egg laying seems to vary considerably. I have found fresh eggs as early as March 7, and have watched birds constructing a nest April 28.

93. **Aluco pratincola** (Bonaparte)

BARN OWL

*Strix pratincola* (1) Linton, Condor, x, 1908, p. 127.  
*Aluco pratincola* (2) van Rossem, Condor, xi, 1909, p. 208. (3) Howell and van Rossem, Condor, xiii, 1911, p. 209. (4) Willett, Pac. Coast Avif., 7, 1912, p. 50. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 69.  
*Tyto perlata pratincola* (6) Ridgway, Birds North & Mid. Am., vi, 1914, p. 607.

Rather rare resident of some of the islands. A. van Rossem (2) saw one on the Coronados, April 9, 1909, which I am inclined to think was a straggler from the mainland, as no one else has met with it there, and this group has been very thoroughly worked. G. Willett (1) shot a specimen on Santa Cruz, November 20, 1907, and A. van Rossem and I saw one there on the night of April 27, 1911. H. C. Burt (4) collected a bird on Anacapa.

94. **Asio wilsonianus** (Lesson)

LONG-EARED OWL

*Asio wilsonianus* (1) Linton, Condor, xi, 1909, p. 194. (2) van Rossem, Condor, xi, 1909,

p. 208. (3) Willett, Pac. Coast Avif., 7, 1912, p. 50. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 69.

Rather rare resident of San Clemente and Catalina. Accidental on the Coronados, where J. B. Dixon (2) saw one April 7, 1909. C. B. Linton (1) met with four, one of which he shot, on San Clemente, during December, 1908. O. W. Howard (3) found six nearly half-grown young in an old raven's nest on Catalina in April, 1909, and I saw a single adult in the same locality, April 11, 1910.

95. **Asio flammeus** (Pontoppidan)

SHORT-EARED OWL

*Asio flammeus* (1) Grinnell, Auk, xv, 1898, p. 234. (2) Willett, Pac. Coast Avif., 7, 1912, p. 50.

*Asio accipitrinus* (3) Osburn, Condor, xi, 1909, p. 137.

Casual wanderer to the islands. J. Grinnell (1) saw a newly mounted specimen of this owl on Catalina during the latter part of December, 1897, that had been shot the week before.

96. **Bubo virginianus pacificus** Cassin

PACIFIC HORNED OWL

*Bubo virginianus pacificus* (1) Willett, Pac. Coast Avif., 7, 1912, p. 53.

O. W. Howard (1) saw a horned owl on Santa Cruz Island, April 29, 1906, which was presumably this form. It may either be a rare resident of the island, or the one specimen may have wandered from the mainland.

97. **Speotyto cunicularia hypogaea** (Bonaparte)

BURROWING OWL

*Athene cunicularia* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1879, p. 77.

*S[peotyto]. cunicularia hypogaea* (2) Streater, Orn. & Ool., xiii, 1888, p. 54.

*Speotyto cunicularia hypogaea* (3) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 140.

(4) Keeler, Zoe, i, 1891, p. 340. (5) Grinnell, Auk, xv, 1898, p. 234. (6) Breninger, Auk, xxi, 1904, p. 222. (7) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (8) Linton, Condor, x, 1908, p. 84. (9) Linton, Condor, x, 1908, p. 127. (10) van Rossem, Condor, xi, 1909, p. 208. (11) Willett, Pac. Coast Avif., 7, 1912, p. 53. (12) Ridgway, Birds North & Mid. Am., vi, 1914, p. 817.

Burrowing Owl (13) Willett, Condor, xii, 1910, p. 172. (14) Burt, Condor, xiii, 1911, p. 166.

Resident on the islands but not common. A. van Rossem (10) shot a female on the Coronados, April 8, 1909, but it must be rare there as I have never observed it during any of my visits. C. A. Keeler (4) recorded the species from San Nicolas as well as from San Clemente, on certain parts of which it is to be found in some numbers. J. Grinnell (5) saw one on Catalina during December, 1897, and was told that it was quite numerous at times. I saw a single individual here several times in April, 1911. It seems to be lacking on Santa Barbara Island. H. C. Burt (14) was informed that the species had been seen at different times on Anacapa. C. B. Linton (9) reports the bird as fairly common in suitable places on Santa Cruz, and states that they average a trifle paler than mainland

specimens, with slightly different measurements. Mr. Ward, in charge of San Miguel Island, told Willett (13) that there were a few there.

98. **Ceryle alcyon** (Linnaeus)

BELTED KINGFISHER

*Ceryle alcyon* (1) Blake, Auk, iv, 1887, p. 329. (2) Streater, Orn. & Ool., xiii, 1888, p. 53. (3) Keeler, Zoe, i, 1891, p. 339. (4) Grinnell, Pasadena Acad. Sci., i, 1897, p. 14. (5) Grinnell, Auk, xv, 1898, p. 234. (6) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (7) Linton, Condor, x, 1908, p. 84. (8) Linton, Condor, x, 1908, p. 127. (9) Grinnell, Condor, x, 1908, p. 130. (10) Osburn, Condor, xi, 1909, p. 137. (11) Willett, Pac. Coast Avif., 7, 1912, p. 84.

Regular migrant to the islands. A. van Rossem saw one on the Coronados, August 13, 1914. One was seen almost daily about our camp on San Clemente in late March and early April, 1915, and it has been recorded from there in the fall. J. Grinnell (5) found it fairly common at Catalina in December, 1897, and he (9) shot one on Anacapa, September 4, 1903. Reported in some numbers by various writers from July to December on Santa Cruz.

99. **Sphyrapicus ruber ruber** (Gmelin)

RED-BREADED SAPSUCKER

*Sphyrapicus varius nuchalis* (1) Linton, Condor, x, 1908, p. 84. (2) Ridgway, Birds North & Mid. Am., vi, 1914, p. 280. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 80. *Sphyrapicus ruber ruber* (4) Willett, Pac. Coast Avif., 7, 1912, p. 56.

Rather rare winter visitant to the larger islands. C. B. Linton (1) took two immature birds of this form on San Clemente, October 11, 1907, which he erroneously recorded as *S. v. nuchalis*. I have seen their marks on trees on Catalina, and April 8, 1911, I caught sight of a distant bird which was probably of this species. On Santa Cruz Island, during the latter part of April, A. van Rossem and I repeatedly saw trees that had been worked on by some sapsucker.

100. **Asyndesmus lewisi** Riley

LEWIS WOODPECKER

*Asyndesmus lewisi* (1) Dawson, Condor, xvii, 1915, p. 204.

On Santa Cruz Island, April 4, 1915, W. L. Dawson (1) saw a single individual on one of the outlying barns of the main ranch. It was not again encountered.

101. **Colaptes cafer collaris** Vigors

RED-SHAFTED FLICKER

*Colaptes mexicanus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77.

*Colaptes* (2) Blake, Auk, iv, 1887, p. 329.

*Colaptes cafer* (3) Streater, Orn. & Ool., xiii, 1888, p. 53. (4) Grinnell, Auk, xv, 1898, p. 234. (5) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 44. (6) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 229.

*Colaptes cafer* (?) (7) Keeler, Zoe, i, 1891, p. 339.

*Colaptes cafer collaris* (8) Richardson, Condor, x, 1908, p. 66. (9) Linton, Condor, x,

1908, p. 127. (10) Howell and van Rossem, Condor, XIII, 1911, p. 209. (11) Willett, Pac. Coast Avif., 7, 1912, p. 57. (12) Wright and Snyder, Condor, xv, 1913, p. 91. *C[olaptes]. a[uratus]. luteus* (13) Howell and van Rossem, Condor, XIII, 1911, p. 209.

Rather common resident of Santa Cruz, and present on Catalina during the winter at least. J. Grinnell (1) met with these birds in some numbers on Catalina during December, 1897, flushing them from the north slopes, where they were digging in the damp turf for larvae. I have noted two or three here in early April. C. H. Richardson (8) considers them to be merely winter visitants in this locality, as he was unable to find any old nesting holes. H. Linton (MS) shot one on San Nicolas in May, 1910, which he presented to G. Willett.

Numerous on Santa Cruz, and although no nests have been reported, they surely breed as they are present throughout the year. A. van Rossem and I found them exceedingly shy. We stated (10, 13) that many birds were seen in which the usual red was replaced by yellow, and judged accordingly that there were also Northern Flickers present, or at least hybrids which closely approached the latter. I have since changed this opinion, and consider, that whatever may be the correct explanation of the occurrence of the so-called hybrid flickers that are reported from many parts of the west, the birds of Santa Cruz are amenable to the same influences that cause the red of the linnets here often to be replaced by yellow.

## 102. *Phalaenoptilus nuttalli californicus* Ridgway

### DUSKY POOR-WILL

*Phalaenoptilus nuttalli californicus* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 14. (2) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (3) Richardson, Condor, x, 1908, p. 66. (4) Willett, Pac. Coast Avif., 7, 1912, p. 57. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 84.

A regular but not common migrant through the southern islands. J. Grinnell (1) says that on San Clemente from March 30 to April 2, 1897, this bird was heard each evening, and a female was secured March 31. As no one else has heard them there, the above would indicate that perhaps there was an unusually heavy migratory wave of them passing through that year. C. H. Richardson (3) has seen them occasionally in April on Catalina, and during 1911 I saw two birds on the 8th of that month and another on the 10th. O. W. Howard (MS) shot a bird on Anacapa Island, April 6, 1906.

## 103. *Chordeiles acutipennis texensis* Lawrence

### TEXAS NIGHTHAWK

*Chordeiles acutipennis texensis* (1) Willett, Pac. Coast Avif., 7, 1912, p. 58. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 85.

G. Willett (1) shot an adult female on Santa Barbara Island, June 20, 1911, and dissection showed her to be breeding. Although a careful search was made during the succeeding days, her mate could not be located, and it is barely possible that she had wandered over from one of the larger islands the night before.

104. **Chaetura vauxi** (J. K. Townsend)

## VAUX SWIFT

*Chaetura vauxi* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (2) Willett, Pac. Coast Avif., 7, 1912, p. 59.

Noted by J. Mailliard (1) on Santa Cruz Island during April, 1898.

105. **Aeronautes melanoleucus** (Baird)

## WHITE-THROATED SWIFT

*Aeronautes melanoleucus* (1) Grinnell, Pasadena Acad. Sci., I, 1897, pp. 9, 15. (2) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 43. (3) Breninger, Auk, XXI, 1904, p. 220. (4) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (5) Richardson, Condor, X, 1908, p. 66. (6) Linton, Condor, X, 1908, p. 84. (7) Linton, Condor, X, 1908, p. 127. (8) Osburn, Condor, XI, 1909, p. 137. (9) Ridgway, Birds North & Mid. Am., V, 1911, p. 688. (10) Willett, Pac. Coast Avif., 7, 1912, p. 59. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 86.

*Aeronautes melanoleucus* (12) Wright, Condor, XI, 1909, p. 100.

White-throated Swift (13) Willett, Condor, XII, 1910, p. 171.

Fairly common on most of the islands, and evidently breeding in suitable localities. A. van Rossem and I noted a small flock on the Coronados, June 25, 1913, and the former shot a female which contained a well developed egg. They were probably nesting on the high sand-stone cliffs on the south side of south island. J. Grinnell (1) records this species from San Nicolas in May, 1897; on San Clemente, D. R. Dickey, L. M. Huey and I saw them several times in the early spring of 1915. Here at Howland's Bay, C. B. Linton (6) saw them entering crevices in the cliffs, March 7, 1907. I have repeatedly observed them darting about the high ridges of Catalina in the spring, and G. Willett (13) found a number of them present on Anacapa, June 5, 1910. A. van Rossem and I saw small flocks on Santa Cruz the latter part of April, 1911, and C. B. Linton (7) recorded several there in December, 1907.

106. **Calypste costae** (Bourcier)

## COSTA HUMMINGBIRD

*Calypste costae* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 15. (2) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (3) Willett, Pac. Coast Avif., 7, 1912, p. 60. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 86.

Breeds on some of the islands. During several visits to the Coronados in spring, I have found this hummer frequenting the low bushes that straggle over the cliff bordering the cove on south island. It seems to be a fairly common breeder and is very much in evidence near its home site, making pugnacious sallies after other birds and even attacking any gull that chances near. J. Grinnell (1) records a single adult male on San Clemente, March 30, 1897, but considers that it was merely a migrant. G. Willett (3) found it rather common among the cactus patches of Santa Barbara Island in June, 1911, and on the 19th, noted a female feeding young just out of the nest.



107.

**Calypte anna** (Lesson)

## ANNA HUMMINGBIRD

*Calypte anna* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Grinnell, Auk, xv, 1898, p. 235. (3) Mailliard, Bull. Cooper Orn. Club, i, 1899, pp. 42, 44. (4) Richardson, Condor, x, 1908, p. 66. (5) Linton, Condor, x, 1908, p. 127. (6) Osburn, Condor, xi, 1909, p. 137. (7) Ridgway, Birds North & Mid Am., v, 1911, p. 621. (8) Willett, Pac. Coast Avif., 7, 1912, p. 60. (9) Grinnell, Pac. Coast Avif., 11, 1915, p. 87.

Not rare on the islands, breeding on some of them at least. May 17, 1910, I saw a single male of this species on the Coronados. On San Clemente, for several days during the latter part of March, 1915, one collected bits of cotton from the vicinity of our skinning table. At Catalina J. Grinnell (2) shot an adult female and saw another the last of December, 1897, which indicates that they may spend the entire winter in that locality, and C. H. Richardson (4) saw a few there in April. C. B. Linton (5) found them to be fairly common on Santa Cruz during November and December, 1907, and A. van Rossem and I saw several there the latter part of April, 1911, the former taking two males on the 29th and 30th, respectively.

108.

**Selasphorus alleni** Henshaw

## ALLEN HUMMINGBIRD

*Selasphorus rufus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Cooper, Land Birds Calif., i, 1870, p. 356.

*Trochilus rufus* (3) Blake, Auk, iv, 1887, p. 329. (4) Keeler, Zoe, i, 1891, p. 339.

*Selasphorus alleni*. (5) Grinnell, Pasadena Acad. Sci., i, 1897, p. 15. (6) Grinnell, Auk, xv, 1898, p. 234. (7) Grinnell, Bull. Cooper Orn. Club, i, 1899, p. 18. (8) Mailliard, Bull. Cooper Orn. Club, i, 1899, pp. 42, 44. (9) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 230. (10) Grinnell, Pac. Coast Avif., 3, 1902, p. 41. (11) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142. (12) Richardson, Condor, x, 1908, p. 66. (13) Linton, Condor, x, 1908, p. 84. (14) Linton, Condor, x, 1908, p. 127. (15) Wright, Condor, xi, 1909, p. 100. (16) van Rossem Condor, xi, 1909, p. 208. (17) Willett, Condor, xii, 1910, p. 171. (18) Ridgway, Birds North & Mid. Am., v, 1911, p. 610. (19) Willett, Pac. Coast Avif., 7, 1912, p. 61. (20) Snyder, Condor, xvi, 1914, p. 182. (21) Shepardson, Condor, xvii, 1915, p. 130. (22) Grinnell, Pac. Coast Avif., 11, 1915, p. 88.

Common resident. On the Coronados A. van Rossem (16) found these birds to be very common in April, 1909, and H. Wright (15) noted what he believed to be this form the last part of June, 1908. On San Clemente J. Grinnell (5) met with them commonly along the ravines, the latter part of March, 1897, and one nest was found. This, as well as a number of other nests found by C. B. Linton (13), was composed chiefly of sheeps wool, with the usual covering of lichens and plant fiber.

The species is especially abundant on Catalina, where I have observed that the birds are partial to the clumps of wild tobacco, though not by any means confined to its vicinity. As an instance of its numbers here, G. K. Snyder (20) during fifty-five minutes on March 20, 1914, examining, with the aid of a cumbersome ladder, about thirty trees for possible nests, discovered and inspected elev-

en. Several of these were newly completed, and two held young almost ready to fly. This hummingbird breeds mostly in the trees above stream beds.

J. G. Cooper (1) reported the species from Santa Barbara Island, and V. W. Owen (17) saw a male on the top of Anacapa, June 5, 1910. On Santa Cruz, A. van Rossem and I remarked a few the last of April, 1911, E. W. Blake (3) recorded the species as very common in July and August, while C. B. Linton (14) saw several and shot a male, November 24, 1907.

109.

**Tyrannus verticalis** Say

## ARKANSAS KINGBIRD

*Tyrannus verticalis* (1) Mailliard, Bull. Cooper Orn. Club, 1, 1899, p. 45. (2) Linton, Condor, x, 1908, p. 82.

Casual migrant. On San Clemente C. B. Linton (2) saw one of these birds April 3, 1907, and another on the 5th. J. Mailliard (1) took a specimen on Santa Cruz in April, 1898, and W. L. Dawson (MS) saw two in the same locality, one on April 6, 1915, and the other on the 19th.

110.

**Tyrannus vociferans** Swainson

## CASSIN KINGBIRD

*Tyrannus vociferans* (1) Linton, Condor, x, 1908, p. 127. (2) van Rossem, Condor, xi, 1909, p. 208. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 89.

Occasional migrant. A. van Rossem (2) recorded a pair from the Coronados in April, 1909. On Santa Cruz C. B. Linton (1) saw a bird November 24, 1907, which he believes was of this species.

111.

**Myiarchus cinerascens cinerascens** (Lawrence)

## ASH-THROATED FLYCATCHER

Accidental on the islands. J. Grinnell (MS) obtained a good view of one of these birds among some walnut trees on Santa Cruz Island, September 3, 1903.

112.

**Sayornis sayus** (Bonaparte)

## SAY PHOEBE

*Sayornis saya* (1) Grinnell, Auk, xv, 1898, p. 235. (2) Breninger, Auk, xxi, 1904, p. 223. (3) Linton, Condor, x, 1908, p. 84. (4) Linton, Condor, x, 1908, p. 127. (5) Osburn, Condor, xi, 1909, p. 137.

*Sayornis sayus* (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 90.

A not uncommon winter visitant. C. B. Linton (3) says that on San Clemente these birds are common over the whole island in winter, and I saw one there as late as April 11, 1915. J. Grinnell (1) noted the species in some numbers on Catalina the latter part of December, 1897, and C. B. Linton (MS) has seen it on San Nicolas in January. At Santa Cruz Island the latter writer recorded it as fairly common during November and December, 1907.

113. **Sayornis nigricans** (Swainson)

## BLACK PHOEBE

*Sayornis nigricans* (1) Blake, Auk, iv, 1887, p. 329. (2) Streater, Orn. & Ool., xiii, 1888, p. 54. (3) Keeler, Zoe, I, 1891, p. 339. (4) Grinnell, Auk, xv, 1898, p. 234. (5) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (6) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 230. (7) Breninger, Auk, xxi, 1904, p. 223. (8) Richardson, Condor, x, 1908, p. 67. (9) Linton, Condor, x, 1908, p. 84. (10) Linton, Condor, x, 1908, p. 127. (11) Willett, Pac. Coast Avif., 7, 1912, p. 63. (12) Wright and Snyder, Condor, xv, 1913, p. 91. (13) Grinnell, Pac. Coast Avif., 11, 1915, p. 90.

Resident but not in large numbers. C. A. Keeler (3) recorded this species from San Nicolas. On San Clemente it is rather rare and confined to the north-west coast. C. B. Linton (9) found an unfinished nest there March 20, 1907, and I saw a single bird March 27, 1915, the only one during a three weeks stay. At Catalina I have seen occasional birds during April, and J. Grinnell (4) noted three in December, 1897. It was present, but not in numbers, on Santa Cruz when A. van Rossem and I were there in late April, 1911. A nest which we kept under observation contained pipped eggs April 26. Linton (10) found it fairly common here during November and December, 1907. C. P. Streater (6) took two adults on Santa Rosa in July, 1892.

114. **Myiochanes richardsoni richardsoni** (Swainson)

## WESTERN WOOD PEWEE

*Contopus richardsonii* (1) Grinnell, Pasadena Acad. Sci., I, 1897, pp. 10, 15.  
*Horizopus richardsonii* (2) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142.  
*Contopus richardsoni richardsoni* (3) Linton, Condor, x, 1908, p. 127.  
*Myiochanes richardsoni richardsoni* (4) Willett, Pac. Coast Avif., 7, 1912, p. 64.

A not uncommon migrant. L. M. Huey (MS) shot a female on the Coronados, May 18, 1913, and the same day saw about four others flycatching from the large boulders near the water. On San Clemente, J. Grinnell (1) saw one June 3, 1897, and considers that although rather late in the season, it was a migrant. He took a female on San Nicolas Island, May 20, and a male on the 23rd. C. B. Linton (3) states that he heard several among the pines of Santa Cruz Island in December, 1907, but collected no birds. As this is two months after they leave southern California, and there is not another winter record for the state, it is extremely likely that Linton was mistaken in supposing that the notes which he heard emanated from this species.

115. **Empidonax difficilis difficilis** Baird

## WESTERN FLYCATCHER

*Empidonax difficilis* (1) Blake, Auk, iv, 1887, p. 329. (2) Keeler, Zoe, I, 1891, p. 339. (3) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (4) Richardson, Condor, x, 1908, p. 67. (5) Linton, Condor, x, 1908, p. 84. (6) Linton, Condor, x, 1908, p. 127. (7) Osburn, Condor, xi, 1909, p. 137.  
*Empidonax insulicola* (8) Oberholser, Auk, xiv, 1897, p. 300. (9) Grinnell, Pasadena Acad. Sci., I, 1897, p. 15. (10) Black, Auk, xiv, 1897, p. 405. (11) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (12) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 230. (13) A. O. U. Committee, Auk, xviii, 1901, p. 302. (14) Bailey, Handb.

Birds West. U. S., 2d ed., 1904, p. 260. (15) Grinnell, Condor, vii, 1905, p. 50. (16) C(hilds), Warbler, ii, 1906, p. 33. (17) Grinnell, Condor, viii, 1906, p. 74. (18) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (19) A. O. U. Committee, Auk, xxv, 1908, p. 353.

*E[mpidonax]. insulicola* (20) Coues, Key N. Am. Birds, 5th ed., 1903, p. 531.

*Empidonax difficilis difficilis* (21) Ridgway, Birds North & Mid. Am., iv, 1907, p. 578.

(22) Willett, Pac. Coast Avif., 7, 1912, p. 64. (23) Wright and Snyder, Condor, xv, 1913, p. 91. (24) Grinnell, Pac. Coast Avif., 11, 1915, p. 91.

Common in summer on the larger islands. The subspecies *insulicola* was described by H. C. Oberholser (8) from a specimen taken on Santa Rosa Island, July 3, 1892. From *difficilis* it was said to differ in being darker, browner above, especially the head, and paler below, especially anteriorly. There is a great deal of individual and seasonal variation in birds from the mainland, and upon bringing large series together since that time, other writers have claimed that the insular bird was not entitled to subspecific rank, wherefore it was subsequently rejected by the A. O. U. Committee (19).

C. B. Linton (5) states that the earliest birds he saw on Clemente were a pair on April 1, 1907, and that but three or four were noted as late as October. They are quite numerous on Catalina and mostly frequent the shady dark parts of the canyons. A. van Rossem and I found the species to be not particularly numerous and rather shy on Santa Cruz in April, 1911. Linton (6) saw and heard several there throughout November and as late as December 15, 1907.

A variety of situations are used as nesting sites, the favorite being in an irregularity of a cliff or large boulder; but the fork of a small tree, a niche in a large trunk, or the wall of a sea cave is often chosen. Two broods are raised each season. I have found uncompleted nests after the middle of April, and "Black" (E. W. Blake) (10) has noted a pair building as late as July 10, 1886.

## 116. **Empidonax trailli trailli** (Audubon)

### TRAILL FLYCATCHER

*Empidonax traillii* (1) Osburn, Condor, xi, 1909, p. 137.

C. C. Lamb (MS) shot one of these birds on the south island of the Coronados group April 4, 1908.

## 117. **Empidonax hammondi** (Xantus)

### HAMMOND FLYCATCHER

*Empidonax hammondi* ? (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77.

L. M. Huey (MS) shot a single specimen on San Clemente Island, April 9, 1915. Also reported conditionally by J. G. Cooper (1) from Catalina and Santa Barbara islands. However, as the latter failed to report *difficilis* in the same paper, it is quite possible that the birds which he saw were referable to the latter species.

118. **Otocoris alpestris insularis** C. H. Townsend

## ISLAND HORNED LARK

- Phileremos cornutus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.  
*Eremophila alpestris* var. *chrysolaeama* (2) Henshaw, Rep. Wheeler Surv., 1876, p. 248.  
*Otocoris alpestris rubea* (3) Henshaw, Auk, III, 1886, p. 453.  
*Otocoris alpestris* ———— (4) Blake, Auk, iv, 1887, p. 329.  
*O[tocoris]. alpestris rubea* (5) Streater, Orn. & Ool., XIII, 1888, p. 54.  
*Otocoris alpestris strigata* (6) Dwight, Auk, VII, 1890, pp. 151, 158. (7) Keeler, Zoe, I, 1891, p. 339. (8) Grinnell, Pasadena Acad. Sci., I, 1897, pp. 5, 10, 16. (9) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 318.  
*Otocoris alpestris insularis* (10) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 140. (11) Bendire, Life Hist. N. Am. Birds, II, 1895, p. 347. (12) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 41. (13) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 230. (14) Oberholser, Proc. U. S. Nat. Mus., XXIV, 1902, p. 839. (15) A. O. U. Committee, Auk, XX, 1903, p. 345. (16) Breninger, Auk, XXI, 1904, p. 222. (17) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (18) Ridgway, Birds North & Mid. Am., IV, 1907, p. 317. (19) Linton, Condor, X, 1908, p. 84. (20) Linton, Condor, X, 1908, p. 181. (21) A. O. U. Check-list, 3d ed., 1910, p. 221. (22) Howell and van Rossem, Condor, XIII, 1911, p. 209. (23) Willett, Pac. Coast Avif., 7, 1912, p. 66. (24) Grinnell, Pac. Coast Avif., 8, 1912, p. 16. (25) Wright and Snyder, Condor, XV, 1913, p. 91. (26) Grinnell, Pac. Coast Avif., 11, 1915, p. 95.  
Horned Lark (27) Beck, Bull. Cooper Orn. Club, I, 1899, p. 85. (28) Willett, Condor, XII, 1910, p. 171.  
*Otocoris insularis* (29) Grinnell, Pac. Coast Avif., 3, 1902, p. 45. (30) Linton, Condor, X, 1908, p. 127.  
*O[tocorys]. a[lpestris]. insularis* (31) Coues, Key N. Am. Birds, 5th ed., 1903, p. 508.  
*O[tocoris]. a[lpestris]. insularis* (32) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 269. (33) Reed, N. Am. Birds' Eggs, 1904, p. 228.  
*Otocoris a[lpestris]. insularis* (34) Willett, Condor, XII, 1910, p. 172. (35) Burt, Condor, XIII, 1911, pp. 164, 166.

Resident of the islands. Abundant on some of them and rather rare on others. Not found on the Coronados. This subspecies was originally described by C. H. Townsend (10) from an adult male taken on San Clemente, January 25, 1889. It differs from *actia* in its decidedly darker coloration, and from *strigata* in being slightly darker, with the buffy markings grayer, and underparts of body usually without yellow. Regarding this form Ridgway (18) says "The characters . . . are most pronounced in specimens from the more northern islands of San Miguel, Santa Rosa and Santa Cruz, those from the more southern islands of San Clemente, Santa Barbara, San Nicolas and Santa Catalina inclining towards the mainland form, *O. a. actia*, thus indicating the origin of this insular form." This would probably indicate that the island form originated from the latter, but the more northern islands, having a damper climate, would tend to create characters more closely approaching those of *strigata* of the humid northwest. (See also Oberholser [14].)

C. B. Linton (20) secured one of these birds, a male, from a large flock at Alamitos Bay, Los Angeles County, on January 18, 1908 (the date given in the published record is erroneous). It may be a regular winter visitant to the mainland coast, but I think it more likely that this bird was either an individual that

had accidentally wandered from the islands, or a case of unusual variation of *actia*.

D. R. Dickey, L. M. Huey and I found horned larks most abundant on the open uplands of the northwest end of San Clemente in the spring of 1915. Young on the wing were noted March 25; and during the first week in April second sets were being laid with remarkable uniformity. A number of nests were found, containing either two or three eggs. They were located at the edge of the ice plants, or in the lee of a wisp of grass.

J. Grinnell (8) says that it was the commonest species on San Nicolas, but that (*MS*) on Catalina horned larks were decidedly rare except at the northwest end. Here he heard them on the hillsides near Johnson's Harbor, August 27, 1903; G. Willett (*MS*) saw them occasionally on this part of the island during March, 1905. On Santa Barbara Island the larks are everywhere under one's feet. A nest which I discovered May 1, 1910, held a single egg and was of the usual construction, flimsily built of dry grass only. H. C. Burt (35) reports the species as common on Anacapa.

A number of observers have found it in numbers on the more exposed portions of Santa Cruz Island, but it is inclined to be local here, for in the vicinity of Prisoner's Harbor in the spring of 1911, A. van Rossem and I made a very diligent search for it without results. H. W. Henshaw (11) found a nest here, placed in one of a large pile of abalone shells, overgrown with herbage. He said that horned larks occurred in flocks of both sexes all through June.

G. Willett (31) found this to be one of the commonest land birds on San Miguel. They had evidently raised one brood and were starting to nest again the middle of June, 1910. Here, on June 21 of the same year, O. W. Howard (23) collected a set of three eggs, in which incubation had begun. Several have reported the species from Santa Rosa, but it does not seem to be especially abundant there. Eggs are indistinguishable from those of *actia*. From the above dates I judge that this subspecies must raise at least three broods a season.

119.

### ***Aphelocoma insularis* Henshaw**

#### SANTA CRUZ JAY

- Cyanocitta floridana* var., *californica* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 253.  
*Aphelocoma insularis* (2) Henshaw, Auk, III, 1886, p. 452. (3) Ridgway, Man. N. Am. Birds, 1887, p. 593. (4) Blake, Auk, IV, 1887, p. 329. (5) Streater, Orn. & Ool., XIII, 1888, p. 53. (6) Chapman, Auk, V, 1888, p. 396. (7) A. O. U. Committee, Auk, VI, 1889, p. 11. (8) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 141. (9) Belding, Land Birds Pac. Dist., 1890, p. 111. (10) Keeler, Zoe, I, 1891, pp. 339, 342. (11) Bendire, Life Hist. N. Am. Birds, II, 1895, p. 379. (12) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 326. (13) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (14) Mailliard, Condor, II, 1900, p. 42. (15) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 230. (16) Grinnell, Pac. Coast Avif., 3, 1902, p. 46. (17) Reed, N. Am. Birds' Eggs, 1904, p. 232. (18) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 276. (19) Ridgway, Birds North & Mid. Am., III, 1904, p. 331. (20) Linton, Condor, X, 1908, p. 127. (21) A. O. U. Check-list, 3d ed., 1910, p. 225. (22) Howell and van Rossem, Condor, XIII, 1911, p. 209. (23) Willett, Pac. Coast Avif., 7, 1912, p. 68. (24) Grinnell, Pac. Coast Avif., 8, 1912, p. 18. (25) Wright and Snyder, Condor, XV, 1913,

p. 91. (26) Grinnell, Pac. Coast Avif., 11, 1915, p. 98. (27) Dawson, Condor, xvii, 1915, p. 203.

*A[phelocoma]. insularis* (28) Ridgway, Man. N. Am. Birds, 1887, p. 355. (29) Coues, Key N. Am. Birds, 5th ed., 1903, p. 498.

Santa Cruz Jay (30) Beck, Bull. Cooper Orn. Club, I, 1899, p. 6.

Peculiar to Santa Cruz Island, where it is an abundant resident. This species was first described by H. W. Henshaw (2) from three birds collected by him in June, 1875. In coloration it most nearly approaches *A. c. obscura*, but is very much darker and much larger. It differs from *californica* in greater size, deeper colors, especially the brown of the back, and in having blue instead of white under tail coverts. As with the mainland birds, the males are larger than the females, but not to a degree that can be noticed without comparison of specimens.

During July and August E. W. Blake (4) found the Santa Cruz Jay to be impudently familiar, but when A. van Rossem and I (22) were on the island during the breeding season, we found the opposite to be the case. Although the birds were very common, we might easily have overlooked them entirely. Never a sound did one make unless its mate was shot, and it was useless to try for them by walking through their haunts. However, if we would select a likely spot and sit quiet for a few moments, one would usually approach from the rear and silently examine the intruders from a distance of several yards.

It is truly surprising to note the number of old jays' nests upon the island. These must either last for a greater number of years than is the case elsewhere, or else the birds are in the habit of building extra or dummy nests. The favorite sites seem to be in the tops of the local "palo fierro" (ironwood) trees, though many were noted in low oaks or large bushes, mostly on the sides of the canyons. Construction is the same as that employed by the mainland form. The latter part of April, 1911, all the females shot had already laid, and I believe that a large majority then had small young. Two nests that I examined on the 28th (22) were some twenty feet up in ironwoods, and held, respectively, two small young and an addled egg, and three young, half grown. R. H. Beck (30) found four nests with eggs May 8, 1898, and I believe that the time for fresh eggs varies considerably in different seasons. Eight of the above eggs average 1.16x.88 inches. Extremes are 1.10 to 1.21, in length, and .84 to .92 in diameter.

In the late fall C. B. Linton (20) found that the birds near the shore were nearly all females, while in the high pines males predominated. They are not equally common over the entire island, but seem to prefer the neighborhood of the pines and heavy brush. Smugglers Cove is a good place to look for them.

120.

### ***Corvus corax sinuatus* Wagler**

#### RAVEN

*Corvus carnivorus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Cooper, Land Birds Calif., I, 1870, p. 283.

*Corvus corax* var. *carnivorus* (3) Henshaw, Rep. Wheeler Surv., 1876, p. 251.

*Corvus corax sinuatus* (4) Blake, Auk, iv, 1887, p. 329. (5) Streater, Orn. & Ool., xiii, 1888, p. 54. (6) Keeler, Zoe, I, 1891, p. 339. (7) Zahn, Avifauna, I, 1895, p. 24. (8) Grinnell, Pasadena Acad. Sci., I, 1897, pp. 6, 10, 16. (9) Grinnell, Auk, xv, 1898, p. 234. (10) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (11) Oberholser, Proc.

- U. S. Nat. Mus., xxii, 1900, p. 231. (12) Grinnell, Pac. Coast Avif., 3, 1902, p. 46. (13) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (14) Breninger, Auk, xxi, 1904, p. 219. (15) Richardson, Condor, x, 1908, p. 67. (16) Linton, Condor, x, 1908, p. 84. (17) Linton, Condor, x, 1908, p. 127. (18) Grinnell, Condor, x, 1908, p. 130. (19) Wright, Condor, xi, 1909, p. 100. (20) Osburn, Condor, xi, 1911, p. 137. (21) Burt, Condor, xiii, 1911, p. 167. (22) Howell and van Rossem, Condor, xiii, 1911, p. 210. (23) Willett, Pac. Coast Avif., 7, 1912, p. 68. (24) Wright and Snyder, Condor, xv, 1913, p. 91. (25) Grinnell, Pac. Coast Avif., 11, 1915, p. 99.
- Raven (26) Beck, Bull. Cooper Orn. Club, i, 1899, p. 86. (27) Willett, Condor, xii, 1910, p. 172.
- Corvus corax clarionensis* (28) Ridgway, Birds North & Mid. Am., iii, 1904, p. 264. (29) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141.

Common resident. In regard to the status of the raven of the islands, I must confess to a feeling of uncertainty. Ridgway (28) identifies birds from Clemente and Catalina as *C. c. clarionensis*, stating that although not quite as small as the latter in its typical form, excepting the tarsus, they are nevertheless nearer to it than they are to the mainland birds. *Clarionensis* is similar to *sinuatus* but smaller, especially the bill, and was described from a single specimen (Rothschild & Hartert, Novit. Zool., ix, 1902, p. 381.). The type may have been merely a particularly small specimen from the locality where it was secured. At any rate, all the island specimens examined average well below the measurements for *sinuatus*, as given by Ridgway (28). Three skins from my collection, compare with Rothschild's type from Clarion Island, Mexico, as follows—

| Locality          | Wing | Tail | Culmen | Tarsus | Toe <sup>1</sup> | Date    | Sex |
|-------------------|------|------|--------|--------|------------------|---------|-----|
| Catalina Id. .... | 371  | 217  | 65     | 67     | 42               | 5-25-08 | ♀   |
| Catalina Id. .... | 370  | 210  | 68     | 70     | 46               | 2-11-10 | ♀   |
| Catalina Id. .... | 365  | 216  | 65     | 69     | 42               | 2-17-10 | ♂   |
| Clarion Id. ....  | 395  | ...  | 64     | 70     | ..               | .....   | ♂   |

<sup>1</sup>Middle toe without claw.

On the Coronados there are at least two resident pairs, one breeding on the sandstone cliffs on south island, and the other on the west end of the same. On San Clemente, G. F. Breninger (14) remarks that during February, 1903, he saw thirty-eight at one time, and that there were "seven nests within a hundred yards". Although still decidedly common, they do not now occur there in such great numbers, for they are persistently poisoned by the sheepmen, who assert that they are in the habit of pecking out the eyes of very young lambs. They are quite common on San Nicolas Island.

At Catalina there is always a flock of these birds in the vicinity of the garbage dump near Avalon. Many of them breed in the pockets of the nearby cliffs, but the birds are so wary that it is no easy matter to locate the nests. I have also found many old nests in trees in different parts of the island. In such a situation C. H. Richardson (15) took a set of five fresh and one slightly addled egg, March 19, 1905.

Two or three pairs breed on the cliffs of Santa Barbara Island, where J. Grinnell (8) states that they evidently subsist on the eggs and young of the sea birds which nest so numerously in that locality. On Anacapa, H. C. Burt (21) found a nest ready for eggs March 17, 1911, and is sure that there was only one



pair on the island. A. van Rossem and I (22) discovered two nests, not twenty feet apart, on the sea cliffs of Santa Cruz Island, April 28, 1911. Both held small young. While there we occupied a large pothole at the base of a cliff, and when absent from camp, these birds would enter to investigate. This was much to the detriment of a couple of fine sets of eggs which we once left uncovered. G. Willett (27) says that these birds are common on San Miguel, and H. Wright (21) found an old nest on Santa Rosa that evidently belonged to a raven.

121. **Molothrus ater obscurus** (Gmelin)

DWARF COWBIRD

*Molothrus ater obscurus* (1) Colburn, Condor, xvii, 1915, p. 165.

On September 5, 1914, L. M. Huey (MS) shot an immature male cowbird on the Coronados, that was catching flies in the air from a large boulder near the water's edge. J. Grinnell identified this specimen as *M. a. artemisiac*, although he stated that the bill is not quite the right shape for that form. As I am following the A. O. U. Check-list, the specimen would fall under the above heading. A. E. Colburn (1) records the capture of an additional specimen, an adult male, in the same locality, May 31, 1915.

122. **Xanthocephalus xanthocephalus** (Bonaparte)

YELLOW-HEADED BLACKBIRD

*Xanthocephalus xanthocephalus* (1) Dawson, Condor, xvii, 1915, p. 204.

While at Santa Cruz Island in the spring of 1915, W. L. Dawson (1) saw a mounted specimen of this species which had been taken by Mr. Lucchelli, of the island, during the previous year.

123. **Sturnella neglecta** Audubon

WESTERN MEADOWLARK

*Sturnella neglecta* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 231. (3) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142. (4) Linton, Condor, x, 1908, p. 84. (5) Linton, Condor, x, 1908, p. 128. (6) Burt, Condor, xiii, 1911, pp. 164, 166. (7) Willett, Pac. Coast Avif., 7, 1912, p. 71. (8) Wright and Snyder, Condor, xv, 1913, p. 91. (9) Grinnell, Pac. Coast Avif., 11, 1915, p. 104.

*Sturnella magna* var. *neglecta* (10) Henshaw, Rep. Wheeler Surv., 1876, p. 250.

*Sturnella magna neglecta* (11) Henshaw, Auk, iii, 1886, p. 453. (12) Streater, Orn. & Ool., xiii, 1888, p. 54. (13) Keeler, Zoe, i, 1891, p. 339. (14) Grinnell, Pasadena Acad. Sci., i, 1897, pp. 6, 16. (15) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 45. (16) Breninger, Auk, xxi, 1904, p. 222.

Common resident on most of the islands. We found these birds numerous back from the shore of San Clemente Island in the spring of 1915. D. R. Diekey saw young on the wing as early as April 9. J. Grinnell (14) says that specimens from there taken by him the last of March and first of April, 1897, in comparison with birds in corresponding plumage from Pasadena, are darker and have larger feet. I saw a single Western Meadowlark on Catalina, April 11, 1911, and a few on Santa Barbara Island, May 1, 1908. H. C. Burt (6) records Meadowlarks

as very common on Anacapa in March, 1911. A. van Rossem and I found them to be fairly common on the grass lands of Santa Cruz Island in the spring of 1911. A nest of six slightly incubated eggs was found on April 28. H. C. Oberholser (2) mentions two specimens taken on San Miguel in June, 1892, and H. Wright (8) noted the species on Santa Rosa, July 10, 1912

124. **Icterus cucullatus nelsoni** Ridgway

ARIZONA HOODED ORIOLE

*Icterus cucullatus nelsoni* (1) Richardson, Condor, x, 1908, p. 66. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 105.

C. H. Richardson (1) heard one of these birds at Catalina, April 16, 1906. During the middle of April, 1911, and towards the last of that month, 1908, I repeatedly saw one or possibly two pairs in the grounds of the Banning residence, a mile from Avalon. I twice flushed the female from an inaccessible nest in a palm tree on the lawn, and presume that there were eggs at this date.

125. **Icterus bullocki** (Swainson)

BULLOCK ORIOLE

*Icterus bullocki* (1) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 45. (2) Linton, Condor, x, 1908, p. 84. (3) van Rossem, Condor, xi, 1909, p. 208. (4) Willett, Pac. Coast Avif., 7, 1912, p. 72. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 105.

Regular migrant in small numbers. On the Coronados, A. van Rossem (3) shot a male and saw others during early April, 1909, and I found a dead male there June 10, 1910. C. B. Linton (2) shot a specimen on San Clemente, March 31, 1907, and another on San Nicolas Island, March 30 or 31, 1910. J. Mailliard (1) mentions the species as occurring on Santa Cruz during April, 1908, and W. L. Dawson (MS) saw one there April 20, 1915.

126. **Euphagus carolinus** (Müller)

RUSTY BLACKBIRD

*Euphagus carolinus* (1) Linton, Condor, xi, 1909, p. 194. (2) Willett, Pac. Coast Avif., 7, 1912, p. 72. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 105.

The only record of the Rusty Blackbird for the state of California is that of an adult male shot by C. B. Linton (1) on San Clemente Island, November 20, 1908, and now no. 21271, Museum of Vertebrate Zoology at Berkeley.

127. **Euphagus cyanocephalus** (Wagler)

BREWER BLACKBIRD

*Scolecoph[agus]. cyanocephalus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. *Scolecophagus cyanocephalus* (2) Streater, Orn. & Ool., xiii, 1888, p. 54. (3) Keeler, Zoe, i, 1891, p. 340. *Euphagus cyanocephalus* (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 106. Brewer Blackbird (5) Willett, Condor, xii, 1910, p. 172.

Evidently a rather rare straggler to the islands. C. A. Keeler (3) listed this bird from San Nicolas, and C. P. Streater (2) met with it in the same locality

during the fall of 1886. J. G. Cooper (1) encountered it on Catalina in October only, and Mr. Ward, in charge of San Miguel, told G. Willett (5) that there had been three around his house and barn in the spring of 1910.

128. **Carpodacus purpureus californicus** Baird

CALIFORNIA PURPLE FINCH

*Carpodacus purpureus californicus* (1) Linton, Condor, x, 1908, p. 128.

C. B. Linton (1) shot one in the pines of Santa Cruz Island, December 16, 1907, and saw several others at the same time.

129. **Carpodacus mexicanus clementis** Mearns

SAN CLEMENTE HOUSE FINCH

*Carpodacus frontalis* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 238. (3) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 139.

*Carpodacus frontalis rhodocolpus* (4) Henshaw, Auk, iii, 1886, p. 453. (5) Blake, Auk, iv, 1887, p. 330.

*Carpodacus mexicanus frontalis* (6) Streater, Orn. & Ool., xiii, 1888, p. 53. (7) Keeler, Zoe, i, 1891, p. 339. (8) Grinnell, Pasadena Acad. Sci., i, 1897, pp. 6, 10, 16. (9) Grinnell, Auk, xv, 1898, p. 234. (10) Mailliard, Bull. Cooper Orn. Club, i, 1899, pp. 41, 44. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 107.

*Carpodacus clementis* (12) Mearns, Auk, xv, 1898, p. 258. (13) Grinnell, Pac. Coast Avif., 3, 1902, p. 49. (14) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (15) Linton, Condor, x, 1908, p. 84. (16) Linton, Condor, x, 1908, p. 128. (17) Osburn, Condor, xi, 1909, p. 137.

*Carpodacus mexicanus clementis* (18) A. O. U. Committee, Auk, xvi, 1899, p. 114. (19) McGregor, Condor, ii, 1900, p. 35. (20) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 231. (21) Ridgway, Birds North & Mid. Am., i, 1901, p. 140. (22) Reed, N. Am. Birds' Eggs, 1904, p. 246. (23) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (24) Richardson, Condor, x, 1908, p. 67. (25) Wright, Condor, xi, 1909, p. 100. (26) A. O. U. Check-list, 3d ed., 1910, p. 244. (27) Osburn, Condor, xiii, 1911, p. 32. (28) Howell and van Rossem, Condor, xiii, 1911, p. 210. (29) Willett, Pac. Coast Avif., 7, 1912, p. 73. (30) Grinnell, Pac. Coast Avif., 8, 1912, p. 20. (31) Wright and Snyder, Condor, xv, 1913, p. 91. (32) Grinnell, Pac. Coast Avif., 11, 1915, p. 108.

*Carpodacus*. *mexicanus*. *clementis* (33) Coues, Key N. Am. Birds, 5th ed., 1903, p. 383. (34) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 313.

*Carpodacus frontalis clementae* (35) Breninger, Auk, xxi, 1904, p. 221.

*Carpodacus m[exicanus]*. *clementis* (36) Willett, Condor, xii, 1910, p. 172.

Abundant resident of all the islands, but less so on San Nicolas and San Miguel. Originally described by E. A. Mearns (12) from specimens taken on San Clemente Island, August 25, 1894. Subspecific characters in comparison with mainland birds are: larger legs, feet and bill, wings and tail slightly shorter; striping below broader, and coloration brighter. Two phases of coloration occur in this form, the usual red phase and another in which the red is replaced by yellow. Every intergradation between these two is encountered. I have seen specimens in which the yellow was of very limited extent, a male marked like a female except for a faint red tinge on the chest, a female showing a trace of red, and another with a tinge of yellow.

The breeding season is a long one, and at least three broods must be raised each year. G. F. Breninger (35) found several sets of four and five eggs on San Clemente in February, 1903, and I repeatedly saw young on the wing there during the last of March, 1915. J. Grinnell and F. S. Daggett (14) noted a nest on the Coronados, August 6, 1902, which held small young. The eggs are indistinguishable from those of the mainland bird. The average measurements for a series of nine eggs taken by J. Grinnell (8) on San Clemente is .82x.59 inches. Nesting sites originally were in cactus plants or in niches of cliffs, but the birds are now taking advantage of the chance to occupy more sheltered situations in buildings and sheds, where such occur. I have even known one to take possession of a nest of the Western Flycatcher (28) with one egg of the rightful owner still in place, but as to whether the latter had first deserted of her own accord, I am unable to say. Linnets are fond of congregating about the opuntia patches, on the ripe fruit of which they feed extensively.

Being in doubt as to the identity of birds from Santa Cruz Island, I sent a small series to J. Grinnell for his opinion. He agrees with me in considering the bills of these birds indistinguishable from those of mainland specimens. Among examples from the mainland which he had in the Museum collection, he also found birds more heavily marked than my Santa Cruz specimens.

I believe in subspecies, and think that any form that has a *constant* character of differentiation should be recognized. I cannot see, however, why any race, only two thirds or so of which show the subspecific characters, should have formal place in the catalog of our avifauna. I have gathered together a good sized series of the island *Carpodacus* and have examined many more. I have not taken many measurements of bills and feet, as these often vary in a manner that cannot be shown by calipers, but I have compared them very carefully in the hand, where relative bulk is more apparent. In a large series these members do average a very little larger in the island than in mainland birds, but specimens of the latter may be found which surpass those of the former in the size of both culmen and feet. I have a female taken in Covina, California, the streaking of whose under parts is much heavier than any island female examined, and I have seen males from the mainland just as heavily streaked as any of the insular birds. The latter probably do average heavier in this respect, but there is a large number in which this criterion does not hold good. In the matter of comparative lengths of wing and tail, the following table speaks for itself. Specimens in very worn plumage have not been compared.

|   | Wing | Tail |
|---|------|------|
| 33 males from mainland (Los Angeles Co.)..... | 77.6 | 58.6 |
| 53 males from San Clemente Island .....       | 78.6 | 58.4 |
| 9 males from Santa Cruz Island .....          | 77.  | 58.4 |

In making the above comparisons I am indebted for the loan of specimens to the Museum of History, Science and Art, of Los Angeles, through F. S. Daggett, and to the U. S. Biological Survey, through E. W. Nelson. As but few females were available, I have given measurements of males only. My large series from the type locality certainly goes to show that birds from there at least have not a shorter wing, and to all intents, no shorter tail than mainland birds. The

wing measurement of the few birds from Santa Cruz, while slightly less, is not enough so to merit recognition on this character. I have examined two males from San Miguel, one from Santa Barbara and two from Los Coronados Islands, but these are all in such worn plumages as to be well nigh worthless in the present connection. In coloration, while the island birds are frequently more brilliant than is usual among mainland specimens, occasional individuals of the latter are sometimes still more intense. We therefore have not a single constant criterion whereby *clementis* can be identified, though possibly larger series from some of the other islands, as the Coronados, Santa Barbara or San Miguel may develop some such character.

130. ***Loxia curvirostra stricklandi* Ridgway**

MEXICAN CROSSBILL

*Loxia curvirostra stricklandi* (1) Howell and van Rossem, Condor, XIII, 1911, p. 210. (2) Willett, Pac. Coast Avif., 7, 1912, p. 74.

*Loxia curvirostra bendirei* (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 108.

A. van Rossem and I (1) discovered these birds to be present on Santa Cruz Island in the spring of 1911, in numbers sufficient to preclude the possibility of their being merely stragglers to the region. They were found only in the pine timber below the high ridges in the vicinity of Prisoner's Harbor, and we were pretty sure, with careful searching, to encounter them each time that we went to this region, though they were rather wild and hard to locate. Van Rossem saw a pair April 28, and shot the male, I shot a pair from a flock of eight on May 1, and the former took the female to a pair, and saw three others, on the 2nd.

There is the possibility that these birds were merely winter visitants, but I personally believe that they are resident on the island. The date was a late one for them to be lingering in a winter home, and they were evidently beginning to pair off. Another point is that, although a little low zonally, these pine woods have a very boreal appearance and should provide a suitable home for them.

I have, with the help of J. Grinnell, carefully compared the three island birds now available with the large series of *Loxia* in the Berkeley Museum of Vertebrate Zoology. They are practically indistinguishable from *L. c. bendirei*, and so are much closer to *stricklandi* than to *minor*.

131. ***Passer domesticus* (Linnaeus)**

ENGLISH SPARROW

*Passer domesticus* (1) Dawson, Condor, xvii, 1915, p. 204.

As yet, only accidental on the islands. On San Clemente, March 30, 1915, L. M. Huey and I each saw a male of this species during different times of the day. This was at the corrals, and as we did not see the bird again, I am hoping that the charge of shot which I sent after him took effect. W. L. Dawson (1) also noted a lone female on Santa Cruz, April 18, 1915.

132. **Astragalinus psaltria hesperophilus** Oberholser

## GREEN-BACKED GOLDFINCH

*Spinus psaltria* (1) Grinnell, Auk, xv, 1898, p. 235. (2) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42.

*Astragalinus psaltria* (3) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45.

*Astragalinus psaltria hesperophilus* (4) Richardson, Condor, x, 1908, p. 67. (5) Linton, Condor, x, 1908, p. 128. (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 110.

Rather rare on the islands. I have noted a limited number of these birds on Catalina several times during the early spring of different years, and J. Grinnell (1) saw three pairs there the last of December, 1897. J. Mailliard (2, 3) recorded the species from Santa Cruz Island in April, 1898, and C. B. Linton (5) saw several and shot one during November, 1907, in the same locality. From the above dates one cannot be sure that this bird breeds on the islands, but I think it likely that it is resident where found at all.

133. **Astragalinus lawrencei** (Cassin)

## LAWRENCE GOLDFINCH

*Spinus lawrencei* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42.

*Astragalinus lawrencei* (2) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (3) Richardson, Condor, x, 1908, p. 67. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 110.

Occurs in about the same numbers as the last. I noted a pair of these birds among the eucalypti of Avalon, Catalina Island, May 4, 1908, and C. H. Richardson (3) states that he has seen the species there several times during the same month. J. Mailliard (1, 2) reports it as present on Santa Cruz Island in April, 1898, and W. L. Dawson (MS) saw it several times near the ranch house there during April, 1915.

134. **Spinus pinus** (Wilson)

## PINE SISKIN

*Spinus pinus pinus* (1) Dawson, Condor, xvii, 1915, p. 204.

While on Santa Cruz Island from April 3 to 22, 1915, W. L. Dawson (1) several times encountered this species in the Monterey pine belt.

135. **Passerculus sandwichensis alaudinus** Bonaparte

## WESTERN SAVANNAH SPARROW

*Ammodramus sandwichensis alaudinus* (1) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 141. (2) Keeler, Zoe, I, 1891, p. 341. (3) Grinnell, Pasadena Acad. Sci., I, 1897, p. 17. (4) Linton, Condor, x, 1908, p. 128.

*Passerculus sandwichensis alaudinus* (5) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (6) Linton, Condor, xi, 1909, p. 194. (7) Willett, Pac. Coast Avif., 7, 1912, p. 77. (8) Grinnell, Pac. Coast Avif., 11, 1915, p. 113.

*Ammodramus sandwichensis bryanti* (9) Linton, Condor, x, 1908, p. 128.

Probably a regular though not common migrant to suitable localities. J. Grinnell (3) shot one bird and saw several others along the grassy margin of a slough at the mouth of a canyon on San Clemente, March 30, 1897; C. B. Linton

(6) noted several there during December, 1908; and I took a female March 31, 1915, that was feeding in the corral near a barn. Linton (*MS*) also saw several on San Nicolas in January, 1911. He (9) shot a bird on Santa Cruz Island and saw two others, in December, 1907, which he recorded as *bryanti*, but which has proved to be of this form (7). C. H. Townsend (1) secured a specimen in the same locality February 6, 1889.

136. ***Chondestes grammacus strigatus* Swainson**

WESTERN LARK SPARROW

*Chondestes grammacus strigatus* (1) Linton, Condor, x, 1908, p. 128. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 115.

C. B. Linton (1) saw several of these birds on Santa Cruz Island, and collected one in December, 1907.

137. ***Zonotrichia querula* (Nuttall)**

HARRIS SPARROW

*Zonotrichia querula* (1) Linton, Condor, x, 1908, p. 84. (2) Willett, Pac. Coast Avif., 7, 1912, p. 79. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 116.

C. B. Linton (1) took a specimen of this species, sex undetermined, on San Clemente Island, October 15, 1907. It is now in the University of California Museum of Vertebrate Zoology.

138. ***Zonotrichia leucophrys gambeli* (Nuttall)**

GAMBEL SPARROW

*Zonotrichia gambeli* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

*Zonotrichia leucophrys intermedia* (2) Streets, Bull. U. S. Nat. Mus., vii, 1877, p. 11. (3) Keeler, Zoe, i, 1891, p. 341. (4) Grinnell, Pasadena Acad. Sci., i, 1897, p. 17. (5) Grinnell, Auk, xv, 1898, p. 235. (6) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 41.

*Zonotrichia gambeli intermedia* (7) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, pp. 139, 141.

*Zonotrichia leucophrys gambeli* (8) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232.

(9) Richardson, Condor, x, 1908, p. 67. (10) Linton, Condor, x, 1908, p. 85. (11) Linton, Condor, x, 1908, p. 128. (12) Osburn, Condor, xi, 1909, p. 137. (13) Howell and van Rossem, Condor, xiii, 1911, p. 210. (14) Willett, Pac. Coast Avif., 7, 1912, p. 79. (15) Grinnell, Pac. Coast Avif., 11, 1915, p. 116.

*Zonotrichia leucophrys gambelii* (16) Mearns, Bull. U. S. Nat. Mus. lvi, 1907, p. 142.

Abundant winter visitant. Probably arrives in September and leaves the first part of May. Streets (2) reports one taken on the Coronados, but I imagine that it does not occur there in great numbers, as I have never seen it during the early spring in that locality. We found it most abundant on San Clemente in the spring of 1915. By the time we left the island, April 11, the birds were beginning to bunch up in larger flocks than noted when we first arrived, and the majority were evidently thinking about moving on. Birds were repeatedly noticed chasing each other.

J. Grinnell (5) states that the species was numerous at Catalina in December, 1897, and I have found it to be well distributed over the island in April. C.

H. Townsend (7) notes a specimen taken on Santa Barbara Island, February 13, 1889, and on Santa Cruz, C. B. Linton (11) says that it was common everywhere during November and December, 1907. A. van Rossem and I found it scattered over the hillsides of that island, usually in pairs, up to the time we left, May 2, 1911.

139.

**Zonotrichia coronata** (Pallas)

## GOLDEN-CROWNED SPARROW

*Zonotrichia coronata* (1) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, pp. 139, 141. (2) Keeler, Zoe, I, 1891, p. 341. (3) Grinnell, Pasadena Acad. Sci., I, 1897, p. 18. (4) Grinnell, Auk, XV, 1898, p. 235. (5) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (6) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (7) Richardson, Condor, X, 1908, p. 67. (8) Linton, Condor, X, 1908, p. 85. (9) Linton, Condor, X, 1908, p. 128. (10) A. O. U. Check-list, 3d ed., 1910, p. 262. (11) Howell and van Rossem, Condor, XIII, 1911, p. 210. (12) Willett, Pac. Coast Avif., 7, 1912, p. 80. (13) Grinnell, Pac. Coast Avif., 11, 1915, p. 117.

Common winter visitant but does not occur in flocks, as does the last. L. M. Huey and I saw numbers of this species on San Clemente from March 23 to April 11, 1915, but they were rather shy. On Catalina during April I have seen two or three of these birds every time I spent a few hours in the brush. C. H. Townsend (1) records a specimen taken on Santa Barbara Island, February 13, 1889. C. B. Linton (9) says it was fairly common on Santa Cruz during November and December, 1907, and I (11) saw two birds there as late as April 24, 1911.

140.

**Spizella passerina arizonae** Coues

## WESTERN CHIPPING SPARROW

*Spizella socialis* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 78. (2) Cooper, Land Birds Calif., I, 1870, p. 208.

*Spizella socialis* var. *arizonae* (3) Henshaw, Rep. Wheeler Surv., 1876, p. 244.

*Spizella socialis arizonae* (4) Blake, Auk, IV, 1887, p. 330. (5) Belding, Land Birds Pac. Dist., 1890, p. 155. (6) Keeler, Zoe, I, 1891, p. 339. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 18. (8) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (9) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 232. (10) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142. (11) Richardson, Condor, X, 1908, p. 68.

*Spizella passerina arizonae* (12) Linton, Condor, XI, 1909, p. 194. (13) Osburn, Condor, XI, 1909, p. 137. (14) Willett, Pac. Coast Avif., 7, 1912, p. 80. (15) Grinnell, Pac. Coast Avif., 11, 1915, p. 118.

Chipping Sparrow (16) Willett, Condor, XII, 1910, p. 171.

Resident in rather small numbers on some of the islands. J. Grinnell (7) noted a few on San Clemente in the spring of 1897, and from the actions of a pair, he judged that they had a nest nearby. C. B. Linton (12) shot two birds there in December, 1908. I have seen them occasionally on Catalina during April. In June, one year in the sixties, J. G. Cooper (1) noted a flock of them on the same island. A. van Rossem and I saw a number on Santa Cruz in April, 1911, and J. Grinnell (MS) found them plentiful there during the first part of September, 1903. G. Willett (16) reported the species as plentiful on Santa Rosa Island, June 7, 1910.



141. **Spizella atrogularis** (Cabanis)

## BLACK-CHINNED SPARROW

*Spizella atrogularis* (1) Linton, Condor, xi, 1909, p. 194. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 119.

The single record is of a female shot by C. B. Linton (1) on San Clemente Island, December 5, 1908.

142. **Junco hyemalis thurberi** Anthony

## THURBER JUNCO

*Junco hiemalis oregonus* (1) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 45.

*Junco hyemalis thurberi* (2) Linton, Condor, x, 1908, p. 85. (3) Linton, Condor, x, 1908, p. 128. (4) Willett, Pac. Coast Avif., 7, 1912, p. 82.

*Junco oregonus oregonus* (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 120.

*Junco oregonus thurberi* (6) Grinnell, Pac. Coast Avif., 11, 1915, p. 120.

Rare winter visitant. C. B. Linton (2) collected a bird on San Clemente Island, October 13, 1907, he (4) saw one on San Nicolas, March 31, 1910, and (3) took a pair on Santa Cruz November 28, 1907. In the latter locality J. Mailliard (1) shot a female in April, 1898, which he ascribed to *oregonus*. He (MS) now, however, believes that it is *thurberi*.

143. **Amphispiza belli** (Cassin)

## BELL SPARROW

*Poospiza belli* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Cooper, Land Birds Calif., i, 1870, p. 204.

*Amphispiza belli* (3) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 140. (4) Belding, Land Birds Pac. Dist., 1890, p. 162. (5) Keeler, Zoe, i, 1891, p. 340. (6) Grinnell, Pasadena Acad. Sci., i, 1897, p. 18. (7) Breninger, Auk, xxi, 1904, p. 221. (8) Linton, Condor, x, 1908, p. 85. (9) A. O. U. Check-list, 3d ed., 1910, p. 269. (10) Willett, Pac. Coast Avif., 7, 1912, p. 82. (11) Grinnell, Pac. Coast Avif., 11, 1915, p. 121.

*Amphispiza belli clementae* (12) Ridgway, Auk, xv, 1898, p. 230. (13) A. O. U. Committee, Auk, xviii, 1901, p. 313. (14) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141.

*Amphispiza belli belli* (15) Ridgway, Birds North & Mid. Am., i, 1901, p. 268. Bell Sparrow (16) Willett, Condor, xii, 1910, p. 171.

Common resident of San Clemente, San Nicolas and Santa Rosa islands. R. Ridgway (12) described a subspecies, *A. b. clementae*, from San Clemente, similar to *belli* in coloration, but larger and with a relatively larger bill. The difference, however, has not been considered to be sufficiently pronounced to justify the recognition of the subspecies. On San Clemente the species is common on the mesa lands back from the shore, and L. M. Huey and I found several nests with piped eggs and young the latter part of March, 1915. They were situated in scrubby brush a few inches above the ground.

J. G. Cooper (1, 2) reported a specimen of the Bell Sparrow from Santa Barbara Island. There is a specimen of *Melospiza m. graminea* in juvenal plumage, in the Museum of Vertebrate Zoology at Berkeley, from Santa Barbara Island, marked in Dr. Cooper's handwriting "May 30, 1863, *Poospiza belli* or *Peu-*

*cea ruficeps*". Under the circumstances the species cannot be credited to the fauna of that island.

Several writers state that it is common on San Nicolas, and G. Willett (16) reported it as numerous in the brush of Santa Rosa Island in June, 1910.

144. ***Aimophila ruficeps ruficeps* (Cassin)**

RUFOUS-CROWNED SPARROW

*Peucaea ruficeps* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Cooper, Land Birds Calif., i, 1870, p. 218. (3) Henshaw, Rep. Wheeler Surv., 1876, p. 244. (4) Belding, Land Birds Pac. Dist., 1890, p. 163.

*Aimophila ruficeps ruficeps* (5) Ridgway, Birds North & Mid. Am., i, 1901, p. 247. (6) Linton, Condor, x, 1908, p. 128. (7) A. O. U. Check-list, 3d ed., 1910, p. 272. (8) Willett, Pac. Coast Avif., 7, 1912, p. 83. (9) Grinnell, Pac. Coast Avif., 11, 1915, p. 122.

*Aimophila ruficeps* (10) Howell and van Rossem, Condor, xiii, 1911, p. 210.

Common resident on Santa Cruz, and has been taken on Catalina. J. G. Cooper took two adults in worn plumage on Catalina, June 19 and 28, 1863, now in the collection of the Museum of Vertebrate Zoology at Berkeley. As far as I know, no one has since met with the species in this locality.

On Santa Cruz, in December, 1907, C. B. Linton (6) encountered a flock of some forty or fifty birds feeding on a hillside. During April, 1911, A. van Rossem and I (10) found them rather common in suitable places. A female which I shot on the 26th had no feathers on the abdomen, indicating that she was incubating at the time.

Through the kindness of J. E. Thayer and J. Grinnell, I recently assembled a series of thirteen specimens of this species from Santa Cruz Island, and eighty-three from the mainland. The conclusion reached is that the island birds differ from the continental ones in having slightly shorter wing, bill and middle toe, and longer tail and tarsus. The bill is wider at the base, and the tarsus heavier. The underparts seem to average slightly darker, and there is less tendency to buffiness on the chin. The upper parts are about the same in the two lots. Although these differences are readily apparent in a series, there is no constant criterion, and therefore, according to my opinion, no justification in naming a new form.

145. ***Melospiza melodia graminea* C. H. Townsend**

SANTA BARBARA SONG SPARROW

*Poospiza belli* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

*Melospiza heermanni* (2) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (3) Cooper, Land Birds Calif., i, 1870, p. 213.

*Melospiza fasciata samuelis* (4) Henshaw, Auk, iii, 1886, p. 453.

*Melospiza fasciata graminea* (5) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 139. (6) A. O. U. Committee, Auk, viii, 1891, p. 86. (7) Grinnell, Pasadena Acad. Sci., i, 1897, p. 6. (8) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 392. (9) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 44.

*Melospiza fasciata samuelis* (?) (10) Keeler, Zoe, i, 1891, p. 339.

*M[elospiza]. fasciata graminea* (11) Keeler, Zoe, i, 1891, p. 342.

*M[elospiza]. f[asciata]. graminea* (12) Beck, Bull. Cooper Orn. Club, i, 1899, p. 86.

*Melospiza melodia graminea* (13) Oberholser, Auk, xvi, 1899, p. 183. (14) A. O. U.

Check-list, 3d ed., 1910, p. 274. (15) Howell and van Rossem, Condor, XIII, 1911, p. 210. (16) Willett, Pac. Coast Avif., 7, 1912, p. 84. (17) Grinnell, Pac. Coast Avif., 8, 1912, p. 22. (18) Wright and Snyder, Condor, xv, 1913, p. 91. (19) Grinnell, Pac. Coast Avif., 11, 1915, p. 125.

*Melospiza cinerea graminea* (20) Ridgway, Birds North & Mid. Am., I, 1901, p. 369. (21) A. O. U. Committee, Auk, xx, 1903, p. 35.

*Melospiza graminea* (22) Grinnell, Pac. Coast Avif., 3, 1902, p. 56.

*M[elospiza]. m[elodia]. graminea* (23) Coues, Key N. Am. Birds, 5th ed., 1903, p. 420.

*M[elospiza]. c[inerea]. graminea* (24) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 358. (25) Reed, N. Am. Birds' Eggs, 1904, p. 267.

*Melospiza graminea* (?) (26) Linton, Condor, x, 1908, p. 128.

Abundant resident of Santa Barbara Island, and less common on Santa Cruz. C. H. Townsend (5) described this subspecies from an adult male taken on Santa Barbara Island, February 12, 1889. It is quite similar to the next form (*Melospiza m. clementae*), but much smaller. In the type locality the first of May, 1908, I found these birds fairly swarming, flushing from the short scrub at my approach and flitting to the tops of nearby bushes. J. Grinnell (7) says that during the middle of May, 1897, full grown juveniles were numerous, and the adults apparently engaged in building their second nests. Their song, notes and actions were just as those of the mainland bird. He and H. Gaylord discovered five nests, a typical one being supported by the obliquely-growing twigs of a bush, and lined and internally composed of fine yellow grasses, in marked contrast to the larger brown grass and weed stems of which this nest is basally built. From three to five eggs are laid. Five sets, aggregating nineteen eggs, secured on May 14 and 15, average .61x.78 inches. Extremes are .70 to .82 in length, and .57 to .64 in diameter. The markings are indistinguishable from those of the eggs of the mainland bird. As previously mentioned there is a young bird in the Museum of Vertebrate Zoology (no. 4142), taken on Santa Barbara Island, May 30, 1863, by J. G. Cooper, and labelled by him "*Poospiza belli* or *Peucea ruficeps*".

A. van Rossem (15) heard two song sparrows near Prisoner's Harbor, Santa Cruz Island the last of April, 1911, but we failed to see any. J. Mailliard (9) states that during April, 1898, he found none except in a certain cypress hedge. If those were shot several more would appear to take their places in a day or two. C. B. Linton (26) found them fairly common on this island in November and December, 1907. Coues (23) says that the subspecies occurs on the adjacent mainland during the winter, but I know of no specimen having been taken to confirm this statement and consider the occurrence as doubtful in the extreme.

On Catalina Island, in April, 1908, I twice heard the song of this species in the same patch of brush. No song sparrow has been taken on this island. If the bird that I heard was one of a resident race it was probably of the subspecies *graminea*, but if a migrant or winter visitant, it is more likely to have been a straggler from the mainland.

#### 146. *Melospiza melodia clementae* C. H. Townsend

##### SAN CLEMENTE SONG SPARROW

*Melospiza heermanni* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

- Melospiza fasciata clementae* (2) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 139. (3) Keeler, Zoe, I, 1891, p. 342. (4) A. O. U. Committee, Auk, VIII, 1891, p. 86. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 18. (6) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 392.
- Melospiza fasciata samuelis* (?) (7) Keeler, Zoe, I, 1891, p. 339.
- Melospiza melodia clementae* (8) McGregor, Bull. Cooper Orn. Club, I, 1899, p. 88. (9) Oberholser, Auk, XVI, 1899, p. 183. (10) Oberholser, Proc. U. S. Nat. Mus., XIII, 1900, p. 232. (11) A. O. U. Check-list, 3d ed., 1910, p. 274. (12) Willett, Pac. Coast Avif., 7, 1912, p. 84. (13) Grinnell, Pac. Coast Avif., 8, 1912, p. 22. (14) Grinnell, Pac. Coast Avif., 11, 1915, p. 126.
- Melospiza cinerea clementae* (15) Ridgway, Birds North & Mid. Am., I, 1901, p. 368. (16) A. O. U. Committee, Auk, XX, 1903, p. 351.
- Melospiza clementae* (17) Grinnell, Pac. Coast Avif., 3, 1902, p. 56. (18) Linton, Condor, X, 1908, p. 85.
- Melospiza coronatorum* (19) Grinnell and Daggett, Auk, XX, 1903, p. 34. (20) Wright, Condor, XI, 1909, p. 100. (21) Osburn, Condor, XI, 1909, p. 137.
- M[elospiza]. m[elodia]. clementae* (22) Coues, Key N. Am. Birds, 5th ed., 1903, p. 421.
- M[elospiza]. c[inerea]. clementae* (23) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 359. (24) Reed, N. Am. Birds' Eggs, 1904, p. 267.
- Song Sparrow (25) Breninger, Auk, XXI, 1904, p. 221.
- Melospiza m[elodia]. clementae* (26) Willett, Condor, XII, 1910, p. 172.
- Melospiza m[elodia]. coronatorum* (27) Osburn, Condor, XIII, 1911, p. 32.

Common resident of Los Coronados, San Clemente, San Miguel and Santa Rosa islands. Originally described by C. H. Townsend (2) from an adult male taken on San Clemente Island, January 25, 1889. Quite similar to *cooperi* but slightly larger, with coloration grayer, back light olive-grayish and black streaks narrower.

J. Grinnell and F. S. Daggett (19) described another subspecies from the Coronados, the type being an adult male taken August 7, 1902. The coloration is said to be about the same as that of *clementae* but tarsus shorter and bill smaller. This form is not recognized by the A. O. U. Committee, but the characters certainly hold good in the case of all specimens which I have examined. Song Sparrows are not especially numerous on most parts of the Coronados, but are pretty evenly distributed over the four islands. The latter part of May, 1914, D. R. Dickey (MS) and party discovered seven nests. These were situated either in the low bushes, the carpet of ice plant, or on the ground. The sets, of three or four eggs, seemed to be fresh at this date, and were undoubtedly the second laying, but as all birds must necessarily breed on rather steep hillsides, a surprising number of eggs had been broken by pebbles rolling or bouncing into the nests from higher up the slope. Grass, fine weed stems, and some gull feathers are the usual material.

Song Sparrows are most abundant on San Clemente where their habit of nesting in wisps of grass that grow in the opuntia patches is favorable to their rapid increase. In late April, 1915, D. R. Dickey, L. M. Huey and I found many nests situated as above and a few in thorny bushes or in low weeds. Most of them held young at this date. I saw a juvenile strong on the wing and with tail almost full length, March 27, after which date they were common; and on April 9 I shot one that had almost entirely completed the post-juvenile molt

How many broods each season they may raise I do not know, but there must be three at least. Their notes are very similar to those of the mainland birds.

G. Willett (26) reports that in June, 1910, this was one of the commonest birds on San Miguel, and several writers have recorded it as present on Santa Rosa Island in considerable numbers. Just why *graminea* should occur in the intermediate territory between the extreme ranges of *clementae*, with climatic and food conditions apparently very similar, is a problem in distribution on which I am able to throw no light.

147. **Melospiza lincolni lincolni** (Audubon)

LINCOLN SPARROW

*Melospiza lincolnii* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 19. (2) Grinnell, Auk, xv, 1898, p. 235. (3) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142.

*Melospiza lincolni* (4) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (5) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232.

*Melospiza lincolni lincolni* (6) Willett, Pac. Coast Avif., 7, 1912, p. 85. (7) Grinnell, Pac. Coast Avif., 11, 1915, p. 128.

Evidently a rather rare but regular winter visitant. J. Grinnell (1) took one bird and saw another on San Clemente, March 30, 1897. He (2) also saw one on two occasions in a dooryard on Catalina in December, 1897, and there was an adult female taken here by C. P. Streater (5) during April, 1892. Collected also by J. Mailliard (4) in April, 1898, on Santa Cruz Island.

148. **Passerella iliaca unalaschcensis** (Gmelin)

SHUMAGIN FOX SPARROW

*Passerella*, *iliaca unalaschcensis* (1) Streater, Orn. & Ool., xiii, 1888, p. 53.

*Passerella iliaca unalaschcensis* (2) Linton, Condor, xi, 1909, p. 194. (3) Willett, Pac. Coast Avif., 7, 1912, p. 85. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 128.

During the winter months fox sparrows occur on the islands in considerable numbers, but as they have been reported so often on sight identification alone, it is hard to judge the relative numbers of the several forms.

C. B. Linton (2) took a female of the subspecies *unalaschcensis* on San Clemente Island, November 21, 1908, pronounced by J. Grinnell as not typical. A. van Rossem shot one on Santa Cruz, April 27, 1911, and I saw another which may or may not have been of this form.

149. **Passerella iliaca megarhyncha** Baird

THICK-BILLED FOX SPARROW

*Passerella iliaca megarhyncha* (1) Grinnell, Auk, xv, 1898, p. 235. (2) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232. (3) Willett, Pac. Coast Avif., 7, 1912, p. 86. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 129.

On Catalina, during late December, 1897, J. Grinnell (1) took four specimens referable to this race; C. P. Streater (2) shot three typical ones in April, 1892, and A. van Rossem (3) secured a pair February 15, 1910. I shot a female on San Clemente, March 28, 1915. On the day before I had seen a bird which appeared to be of the same subspecies. G. Willett (3) collected an adult female

on Santa Cruz, November 24, 1907. I may be mistaken, but I believe that *me-garhyncha* is the most numerous one of the four fox sparrows that are found on the islands, with *insularis* a close second.

150.

**Passerella iliaca stephensi** Anthony

## STEPHENS FOX SPARROW

*Passerella iliaca stephensi* (1) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 233. (2) Grinnell, Pac. Coast Avif., 3, 1902, p. 58. (3) Linton, Condor, x, 1908, p. 128. (4) Willett, Pac. Coast Avif., 7, 1912, p. 86. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 131.

In April I have found fox sparrows in numbers on Catalina, and one that I secured on the 8th is indistinguishable from breeding birds of the San Bernardino Mountains. C. P. Streater shot a pair in this locality April 19 and 21, 1892, which Oberholser (1) pronounces of this subspecies. C. B. Linton (3) secured one in the underbrush near the top of Santa Cruz Island, December 14, 1907.

151.

**Passerella iliaca insularis** Ridgway

## KADIAK FOX SPARROW

*Passerella iliaca unalaschcensis* (1) Grinnell, Auk, xv, 1898, p. 235.  
*Passerella iliaca insularis* (2) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 232. (3) Grinnell, Pac. Coast Avif., 3, 1902, p. 57. (4) Linton, Condor, x, 1908, p. 85. (5) Linton, Condor, x, 1908, p. 128. (6) Willett Pac. Coast Avif., 7, 1912, p. 87. (7) Grinnell, Pac. Coast Avif., 11, 1915, p. 129.  
*Passerella iliaca insularis* (?) (8) Richardson, Condor, x, 1908, p. 68.  
*Passerella iliaca sinuosa* (9) Grinnell, Pac. Coast Avif., 11, 1915, p. 129.

C. B. Linton (4) obtained several of these birds on San Clemente Island in the winter of 1907-8, the first on October 5, and the last April 1. C. P. Streater (2) shot one on Catalina in April, 1892, A. van Rossem (MS) a female February 15, 1910, and J. Grinnell (1) three in December, 1897. C. B. Linton and G. Willett (5) also took several in the pines of Santa Cruz Island during November and December, 1907.

152.

**Pipilo maculatus oregonus** Bell

## OREGON TOWHEE

*Pipilo maculatus oregonus* (1) Linton, Condor, xi, 1909, p. 194. (2) Willett, Pac. Coast Avif., 7, 1912, p. 87. (3) Swarth, Condor, xv, 1913, p. 172. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 132.

C. B. Linton (1) secured an adult female of this form on San Clemente, December 4, 1908, the specimen now being in the University of California Museum of Vertebrate Zoology. The fact of this bird having been taken so far from its usual range is surprising, but although there is of course the possibility that it may be an individual variant of *clementae*, it is in appearance unquestionably nearer to *oregonus* than to the local bird (3).

153.

**Pipilo maculatus clementae** Grinnell

SAN CLEMENTE TOWHIEE

- Pipilo megalonyx* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Cooper, Land Birds Calif., 1870, p. 242.
- Pipilo maculatus megalonyx* (3) Belding, Land Birds Pac. Dist., 1890, p. 171. (4) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 140. (5) Grinnell, Auk, xv, 1898, p. 234.
- Pipilo clementae* (6) Grinnell, Auk, xiv, 1897, p. 294. (7) Grinnell, Pasadena Acad. Sci., I, 1897, p. 19. (8) Grinnell, Pac. Coast Avif., 3, 1902, p. 58. (9) Linton, Condor, x, 1908, p. 85.
- Pipilo maculatus clementae* (10) A. O. U. Committee, Auk, xvi, 1899, p. 120. (11) Ridgway, Birds North & Mid. Am., I, 1901, p. 418. (12) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (13) Richardson, Condor, x, 1908, p. 68. (14) A. O. U. Check-list, 3d ed., 1910, p. 280. (15) Willett, Pac. Coast Avif., 7, 1912, p. 87. (16) Grinnell, Pac. Coast Avif., 8, 1912, p. 22. (17) Grinnell, Pac. Coast Avif., 11, 1915, p. 133.
- Pipilo*. *m[aculatus]*. *clementis* (18) Coes, Key N. Am. Birds, 5th ed., 1903, p. 460.
- Pipilo*. *m[aculatus]*. *clementae* (19) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 366. (20) Reed, N. Am. Birds' Eggs, 1904, p. 270. (21) Swarth, Condor, xv, 1913, p. 168.

Common resident of San Clemente, Santa Catalina and Santa Rosa islands. Originally described by J. Grinnell (6) from a male taken on San Clemente Island, March 31, 1897. It differs from *megalonyx* in being slightly larger, especially the bill and feet, and with lower back and rump grayer. C. B. Linton (9) says that the birds are common near Mosquito Harbor, San Clemente Island. In October, 1907, they were shaking the twigs of the wild cherry trees and then flying down to feed on the fallen fruit. They practically do not occur on the western end of the island, for during a three weeks stay, a single call note from a dense patch of cactus was all that D. R. Dickey, L. M. Huey and I saw or heard of them.

I have found them in some numbers on Catalina during April. In the early mornings the males will mount some bush and send forth their characteristic note by the hour, but later in the day they scratch among the leaves in the shade of the bushes. Here they are rather hard to locate, and unless approached with due caution, will dive into the bush and become hopelessly lost in the scrub on the other side. R. M. Perez (15) took three sets of eggs here from April 13 to 16, 1911, in which incubation was advanced.

A single bird was reported from Santa Barbara Island by J. G. Cooper (1). If correct in regard to the locality of the specimen, it must have been a straggler either from Catalina or Santa Cruz. If from the latter island, it would of course be referable to the next form. Reported as not rare on Santa Rosa. A. van Rossem (MS) tells me that the note of the towhees on San Clemente has none of the querulous upward inflection of that of *megalonyx*, and is shorter and more insistent. I have also been impressed by the unusual tone of the notes of this form on Catalina.

154.

**Pipilo maculatus megalonyx** Baird

SAN DIEGO TOWHIEE

- Pipilo maculatus* var. *megalonyx* (1) Henshaw, Rep. Wheeler Surv., 1876, p. 247.

- Pipilo maculatus megalonyx* (?) Blake, Auk, iv, 1887, p. 330. (3) Belding, Land Birds Pac. Dist., 1890, p. 171. (4) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 140. (5) Keeler, Zoe, I, 1891, p. 339. (6) Linton, Condor, x, 1908, p. 208. (7) Swarth, Condor, xv, 1913, p. 168. (8) Grinnell, Pac. Coast Avif., 11, 1915, p. 132.
- Pipilo maculatus oregonus* (9) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (10) Beck, Bull. Cooper Orn. Club, I, 1899, p. 86.
- Pipilo maculatus clementae* (11) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 233. (12) Ridgway, Birds North & Mid. Am., I, 1901, p. 418. (13) Howell and van Rossem, Condor, XIII, 1911, p. 210. (14) Willett, Pac. Coast Avif., 7, 1912, p. 87. (15) Wright and Snyder, Condor, xv, 1913, p. 91.
- Pipilo clementae* (?) (16) Linton, Condor, x, 1908, p. 128.
- Pipilo maculatus* subsp. (17) Osburn, Condor, XI, 1909, p. 139.
- Spurred Towhee (18) Willett, Condor, XII, 1910, p. 171.

The towhees of Santa Cruz Island have usually been classed with the last race, but several observers have placed them otherwise. While we were on the island in April, 1911, A. van Rossem called my attention to the fact that the call and song of the birds in that locality were precisely like those of *megalonyx* on the mainland, whereas the notes of the towhees from the other islands are considerably different. The few birds from Santa Cruz Island in my collection are easily distinguished from Catalina specimens, but cannot be told from birds from Los Angeles County. H. S. Swarth (7) presents this fact very clearly, and after examining large series, identifies Santa Cruz Island birds as *megalonyx*. He infers that towhees from Santa Rosa Island would also be referable to the mainland race, but until an adequate series from that locality has been examined, I provisionally place them with *clementae*.

Towhees are not abundant on Santa Cruz. In the spring they are shy and little in evidence, but in the fall, when their numbers have been increased by the yearly crop of youngsters, they are rather more common, scratching among the leaves of the brushy hillsides.

Osburn (17) reported having seen a spotted towhee on the Coronados. If there was no mistake in regard to the record, this bird was probably a straggler from the mainland, for it is certain that no *Pipilo* is resident on that group of islands.

## 155. **Zamelodia melanocephala** (Swainson)

### BLACK-HEADED GROSBEAK

- Habia melanocephala* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45.  
*Zamelodia melanocephala capitalis* (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 135.

On Santa Cruz Island, J. Mailliard (1 and MS) shot a male April 27, 1898, and saw several more. W. L. Dawson (MS) also saw a male that was in the possession of Mr. Lucchelli of that island.

## 156. **Guiraca caerulea lazula** (Lesson)

### WESTERN BLUE GROSBEAK

- Guiraca caerulea lazula* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44. (2) Willett, Pac. Coast Avif., 7, 1912, p. 88.  
*Guiraca caerulea salicarius* (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 136.



J. Mailliard (1) shot two males and saw another, April 30, 1898, on Santa Cruz.

157. **Passerina amoena** (Say)

LAZULI BUNTING

*Cyanospiza amoena* (1) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (2) Richardson, Condor, x, 1908, p. 68.

*Passerina amoena* (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 136.

Sometimes rather common during migration. C. H. Richardson (2) states that he has seen this species occasionally during April in the canyons of Catalina. J. Mailliard (1) shot a specimen on Santa Cruz Island, April 14, 1898, and (MS) saw several more on the 21st, while W. L. Dawson (MS) says that it formed the principal part of a migration wave that reached that locality April 19, 1915.

158. **Piranga ludoviciana** (Wilson)

WESTERN TANAGER

*Piranga ludoviciana* (1) Linton, Condor, x, 1908, p. 85. (2) Howell, Condor, XII, 1910, p. 187.

Regular migrant in small numbers. I (2) saw a male on the Coronados, May 26 and 27, 1910, which seemed to feel very much out of place. D. R. Dickey, L. M. Huey and I noted one feeding on some low bushes on San Clemente, March 23, 1915, and C. B. Linton (1) saw several in the same locality during the spring of 1907. J. Grinnell (MS) heard one on the hillside of Santa Cruz Island, September 3, 1903.

159. **Piranga rubra cooperi** Ridgway

COOPER TANAGER

*Piranga rubra cooperi* (1) Linton, Condor, x, 1908, p. 85. (2) Willett, Pac. Coast Avif., 7, 1912, p. 89. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 137.

A female of this species was secured by C. B. Linton (1) on San Clemente, October 11, 1907, and is now in the collection of J. E. Thayer.

160. **Hirundo erythrogastra** Boddaert

BARN SWALLOW

*Hirundo horreorum* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 78. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 235.

*Chelidon erythrogaster* (3) Blake, Auk, IV, 1887, p. 330. (4) Belding, Land Birds Pac. Dist., 1890, p. 187. (5) Keeler, Zoe, I, 1891, p. 339.

*Hirundo erythrogaster* (6) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45.

*Hirundo erythrogastra* (7) Howell and van Rossem, Condor, XIII, 1911, p. 210. (8) Willett, Pac. Coast Avif., 7, 1912, p. 90. (9) Wright and Snyder, Condor, XV, 1913, p. 91.

Common summer visitant on some of the islands. A limited number occur on the Coronados during the spring and summer, breeding in the sea caves where their nests must frequently be dampened by the spray. D. R. Dickey and L. M.

Huey (*MS*) noted two or three birds about the caves of San Clemente in April, 1915, and G. Willett (*MS*) says he saw them building commonly in the caves of Catalina during April, 1904. II. Wright (*9*) saw birds on Santa Barbara Island, July 2 and 3, 1912, and he found a nest with an addled egg on Anacapa, July 1. Abundant on Santa Cruz, where, in April, 1911, we found them nesting in a certain large tide cave in such numbers that their twittering could be heard a long distance away. They frequently visited a spring near camp for the purpose of gathering mud, sometimes trailing long wisps of grass in their wakes.

161. **Tachycineta thalassina lepida** Mearns

NORTHERN VIOLET-GREEN SWALLOW

On San Clemente Island, April 9, 1915, one of these birds flew close over D. R. Diekey and L. M. Huey, permitting certain identification.

162. **Bombycilla cedrorum** Vieillot

CEDAR WAXWING

*Ampelis cedrorum* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 19. (2) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 142.

*Bombycilla cedrorum* (3) Willett, Pac. Coast Avif., 7, 1912, p. 91. (4) Dawson, Condor, XVII, 1915, p. 204. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 140.

Irregular visitant. On San Clemente, J. Grinnell (1) saw a single bird May 31, 1897, which was unmistakably of this species. W. L. Dawson (4) noted a flock of about forty birds on Santa Cruz Island, April 11, 1915, which remained among the holly bushes for a week or more.

163. **Lanius ludovicianus anthonyi** Mearns

ISLAND SHRIKE

*Collyrio excubitorides* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 78.

*Collurio ludovicianus* var. *excubitorides* (2) Henshaw, Rep. Wheeler Surv., 1876, p. 237.

*Lanius ludovicianus excubitorides* (3) Blake, Auk, IV, 1887, p. 330.

*Lanius ludovicianus gambeli* (4) Keeler, Zoe, I, 1891, p. 339. (5) Grinnell, Pasadena Acad. Sci., I, 1897, p. 19. (6) Grinnell, Auk, XV, 1898, p. 234.

*Lanius ludovicianus anthonyi* (7) Mearns, Auk, XV, 1898, p. 261. (8) A. O. U. Committee, Auk, XVI, 1899, p. 122. (9) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (10) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 233. (11) Ridgway, Birds North & Mid. Am., III, 1904, p. 251. (12) A. O. U. Check-list, 3d ed., 1910, p. 297. (13) Howell and van Rossem, Condor, XIII, 1911, p. 210. (14) Willett, Pac. Coast Avif., 7, 1912, p. 92. (15) Grinnell, Pac. Coast Avif., 8, 1912, p. 18. (16) Grinnell, Pac. Coast Avif., 11, 1915, p. 142.

*Lanius anthonyi* (17) Grinnell, Pac. Coast Avif., 3, 1902, p. 62. (18) Linton, Condor, X, 1908, p. 128.

*L[anius]. [udovicianus]. anthonyi* (19) Coues, Key N. Am. Birds, 5th ed., 1903, p. 372. (20) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 393. (21) Reed, N. Am. Birds' Eggs, 1904, p. 283.

*Lanius ludovicianus mearnsi* (22) Ridgway, Proc. Biol. Soc. Wash., XVI, 1903, p. 108. (23) Ridgway, Birds North & Mid. Am., III, 1904, p. 252. (24) A. O. U. Committee, Auk, XXI, 1904, p. 416. (25) A. O. U. Committee, Auk, XXVI, 1909, p. 296.

*Lanius* (26) Breninger, Auk, XXI, 1904, p. 223.

*Lanius* sp. ? (27) Richardson, Condor, x, 1908, p. 68.

*Lanius mearnsi* (28) Linton, Condor, x, 1908, p. 182.

*Lanius* [*udovicianus*]. *mearnsi* (29) Linton, Condor, x, 1908, p. 182.

*Lanius* [*udovicianus*]. *anthonyi* (30) Linton, Condor, x, 1908, p. 182.

Fairly common resident of most of the islands. Originally described by E. A. Mearns (7) from a specimen collected by R. H. Beck on Santa Cruz Island, May 6, 1897. Darker and smaller than *gambeli*. Another island subspecies, *L. l. mearnsi* was described by R. Ridgway (22, 23) and was at one time accepted by the A. O. U. Committee (24), but after its validity had been questioned by a number of writers, it was finally discarded (25). The type was from San Clemente Island and its characters as given, were: similar to *anthonyi* but upper parts darker and upper tail coverts abruptly white, more white on scapulars, white spot at base of primaries larger, and underparts less strongly tinged with gray.

On San Clemente these birds are distributed over most of the island. In an especially favorable little canyon several pairs will congregate, and I have found two pairs breeding in such a place not a hundred yards apart, while a third nest was within a quarter of a mile. On either side of this wash, however, there were no birds for long distances. C. B. Linton (28) found a nest of small young March 1, 1907, and I encountered a family of juveniles that were strong on the wing, March 23, 1915. During the first part of April, second nests were in process of construction. On the western end of the island at least, the nest is almost invariably placed a couple of feet above the ground in a certain kind of thorny bush, and is substantially constructed of twigs and weed stems and lined with sheep wool.

On Catalina shrikes are rather rare, and I have seen only an occasional individual. C. H. Richardson (27) met fully fledged young here that were being fed by the parents in April. Reported from Santa Barbara Island by J. G. Cooper (1), but no one else has met with the species there. H. Robertson and V. W. Owen (14) saw a pair, and found a nest full of young, on Anacapa, June 4, 1899, apparently the only record for this island.

In the vicinity of Prisoner's Harbor, Santa Cruz Island, A. van Rossem and I found shrikes to be decidedly rare. A favorite perch was at the very top of some tall dead pine, and from this the bird would fly when the observer was a surprisingly long distance off. J. Mailliard (9) found two nests here during April, 1898, one, containing a set of seven eggs, placed in the middle of a brush pile, and the other, with six eggs, in a gum tree. Present on Santa Rosa, where H. J. Lelande and O. W. Howard (14) saw a bird June 8, 1910.

Numerically I believe that this subspecies is one of the rarest birds in the country, and it is certainly one of the very shyest of the small land birds. No matter what strategy the hunter employs, the shrikes seem perfectly capable of matching it, and except near the nest, it is well nigh hopeless to try and get within gunshot of one. Even the alarmed shrieking of their own offspring will fail to attract them. While on Clemente in the spring of 1915, I collected the male and three young of a family of these birds. The following day I took the female of another nest a short distance away, but did not try to deprive the

small young of their remaining parent. What was my surprise two days later to find that the single male and the other female had combined forces and were feeding the youngsters of the second nest. I verified this by shooting the male, and his new mate continued to feed her adopted children. We were pretty well acquainted with the shrike population of that section of Clemente, and no matter which birds we shot, there always seemed to be others that came in to take their places and join forces with the widows and widowers.

164. **Vireo huttoni huttoni** Cassin

HUTTON VIREO

- Vireo huttoni* (1) Belding, Land Birds Pac. Dist., 1890, p. 203. (2) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, p. 141. (3) Keeler, Zoe, I, 1891, p. 341.  
*Vireo huttoni* (?) (4) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 44.  
*Vireo mailliardorum* (5) Grinnell, Condor, V, 1903, p. 157. (6) Linton, Condor, X, 1908, p. 181.  
*Vireo huttoni mailliardorum* (7) Ridgway, Birds North & Mid. Am., III, 1904, p. 743. (8) Linton, Condor, X, 1908, p. 128.  
*Vireo huttoni huttoni* (9) Willett, Pac. Coast Avif., 7, 1912, p. 93. (10) Grinnell, Pac. Coast Avif., 11, 1915, p. 143.

Rather common resident of Santa Cruz, and present on Catalina. In the latter locality F. Stephens (1) took a female during August, 1886. A subspecies, *V. mailliardorum* was described from Santa Cruz Island by J. Grinnell (5). Said to be slightly smaller than *huttoni*, especially the bill, darker, more leaden olive above and a little more buffy yellow below posteriorly. The differences, however, were deemed by the A. O. U. Committee as too slight for recognition. A. van Rossem and I found the species fairly common on Santa Cruz in April, 1911, and we took several specimens. C. B. Linton (8) reported it as present in some numbers during November and December, 1907.

165. **Vermivora celata celata** (Say)

ORANGE-CROWNED WARBLER

- Helminthophila celata celata* (1) Linton, Condor, X, 1908, p. 128.  
*Vermivora celata celata* (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 145.

C. B. Linton (1) shot a bird of this species on Santa Cruz Island, November 29, 1907, which was afterwards lost. Both he and G. Willett, who was with him at the time, inform me, however, that there was not the slightest doubt but that the specimen was referable to this form.

166. **Vermivora celata sordida** (C. H. Townsend)

DUSKY WARBLER

- Helminthophaga celata* (1) Cooper, Proc. Calif. Acad. Sci., IV, 1870, p. 78. (2) Cooper, Land Birds Calif., I, 1870, p. 83. (3) Henshaw, Rep. Wheeler Surv., 1876, p. 233.  
*Helminthophila celata lutescens* (4) Henshaw, Auk, III, 1886, p. 453. (5) Blake, Auk, IV, 1887, p. 330. (6) Belding, Land Birds Pac. Dist., 1890, p. 206.  
*H[elminthophila]. celata lutescens* (7) Streater, Orn. & Ool., XIII, 1888, p. 53.  
*Helminthophila celata lutescens* (?) (8) Keeler, Zoe, I, 1891, p. 339.  
*Helminthophila celata sordida* (9) Townsend, Proc. U. S. Nat. Mus., XIII, 1890, pp. 139,

141. (10) A. O. U. Committee, Auk, VIII, 1891, p. 87. (11) Grinnell, Pasadena Acad. Sci., I, 1897, p. 20. (12) Davie, Nests & Eggs N. Am. Birds, 5th ed., 1898, p. 432. (13) Grinnell, Pasadena Acad. Sci., II, 1898, p. 44. (14) Grinnell, Auk, XV, 1898, pp. 234, 236. (15) Grinnell, Bull. Cooper Orn. Club, I, 1899, p. 17. (16) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 42. (17) Oberholser, Proc. U. S. Nat. Mus., XXII, 1900, p. 233. (18) Ridgway, Birds North & Mid. Am., II, 1902, p. 467. (19) Cooke, Bull. U. S. Biol. Surv., XVIII, 1904, p. 42. (20) Howard, Warbler, II, 1906, p. 8. (21) Chapman, Warblers N. Am., 1907, p. 91. (22) Richardson, Condor, X, 1908, p. 68. (23) Wright, Condor, XI, 1909, p. 100.
- Dusky Warbler (24) Beck, Bull. Cooper Orn. Club, I, 1899, p. 86. (25) (Snyder), Oologist, XXVI, 1909, p. 188.
- Helminthophila sordida* (26) Grinnell, Pac. Coast Avif., 3, 1902, p. 63. (27) Linton, Condor, X, 1908, p. 86. (28) Linton, Condor, X, 1908, p. 128.
- H[elminthophila]. c[elata]. sordida* (29) Coues, Key N. Am. Birds, 5th ed., 1903, p. 315. (30) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 405. (31) Reed, N. Am. Birds' Eggs, 1904, p. 292.
- Vermivora celata sordida* (32) Oberholser, Auk, XXII, 1905, p. 245. (33) Mearns, Bull. U. S. Nat. Mus., LVI, 1907, p. 141. (34) A. O. U. Check-list, 3d ed., 1910, p. 308. (35) Willett, Pac. Coast Avif., 7, 1912, p. 95. (36) Grinnell, Pac. Coast Avif., 8, 1912, p. 18. (37) Wright & Snyder, Condor, XV, 1913, p. 92. (38) Grinnell, Pac. Coast Avif., 11, 1915, p. 146.
- Herminthophila c[elata]. sordida* (39) Cooke, Auk, XXII, 1905, p. 297.
- Helminthophila celata* (40) Osburn, Condor, XI, 1909, p. 138.

Reported from all the islands except San Nicolas. This subspecies was first described by C. H. Townsend (9) from a male taken on San Clemente, January 25, 1889. From *lutescens* it differs in being darker, with larger feet and bill, and slightly shorter wings.

On the Coronados I have found the Dusky Warbler common, frequenting mostly the denser growth of bushes on the hillsides. On May 27, 1914, D. R. Dickey (MS) found four nests in a certain kind of scrubby bush, the lower or downhill sides of which are always grown with gray moss. All four nests were situated in clumps of this, but were empty.

Common on the eastern part of San Clemente, where O. W. Howard (20) found several sets of eggs in April, and young ready to leave the nest the first week in May. On the western end of the island, however, the species is almost lacking, as two or possibly three birds were all that three of us heard or saw during a three week's stay in the early spring of 1915.

On Catalina I have found it rather abundant in the darker canyons and on the wooded hillsides. In April, 1907 and 1908, I discovered several nests with eggs or newly hatched young, but in the same month of 1911, although I found the birds to be unusually common, they showed no indications of building, and a diligent search for a week failed to reveal a single nest. Here during the last of December, 1897, J. Grinnell (14) says that they were feeding on the fruit of the opuntia, which had stained their digestive organs and the surrounding tissue a bright red.

Reported provisionally from Santa Barbara Island by J. G. Cooper (1), but its occurrence there has not been confirmed, and he may have been mistaken in the birds he saw. On Anacapa, however, it occurs in limited numbers, and H. J. Lelande (35) took a set of four slightly incubated eggs there April 6, 1906.

On Santa Cruz, A. van Rossem and I met with numbers of these warblers during April, 1911, and C. B. Linton (28) reported them very common there in November and December, 1907. J. Mailliard (16) says that the note of the birds he heard was longer and stronger than that of *lutescens*, with two louder additional notes at the end of the trill. C. H. Townsend (9) mentions a specimen that was secured on Santa Rosa, January 7, 1889, and O. W. Howard (MS) says that he has observed this form on San Miguel.

On a small peninsula near Coronado Beach, known as the Spanish Bight, and now the aviation camp, I noted many Dusky Warblers, and found three incomplete nests April 6, 1910. A. M. Ingersoll (MS) has also found nests at Point Loma, nearby. It occurs in limited numbers on the islands during the fall and winter, but the majority migrate to the mainland, where they may be found in the lowlands from the Mexican line to Santa Barbara County.

The usual nesting site of the Lutescent Warbler is on the ground, but I have never heard of *sordida* building in such a situation. On the smaller barren islands, such as the Coronados and Todos Santos (where it is common), they build in a bush or tangle of vines, a foot or so above the ground, and the nest is always mainly constructed of gray moss, where this is to be had, lined with a little fine grass. On the larger islands, where there are good-sized trees, the site chosen may be a thicket of vines several feet above the bed of a stream, a small shrub, say four feet up, or perhaps an oak as much as fifteen feet above the ground. In such case the nest is quite substantially made of leaves, twigs, bark, rootlets, and often a little sheep wool. Three or four eggs constitute a set, and at least two broods of young are raised each year.

167. **Dendroica coronata** (Linnaeus)

MYRTLE WARBLER

*Dendroica coronata* (1) Grinnell, Pasadena Acad. Sci., 1, 1897, p. 7. (2) Linton, Condor, xi, 1909, p. 194. (3) Willett, Pac. Coast Avif., 7, 1912, p. 96.

*Dendroica coronata hooveri* (4) Grinnell, Pac. Coast Avif., 3, 1902, p. 64. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 147.

Uncommon winter visitant to the islands. C. B. Linton (2) recorded this species as fairly common on San Clemente in the winter of 1908, and J. Grinnell (1) shot an adult female on Santa Barbara Island, May 15, 1897, the only one seen.

168. **Dendroica auduboni auduboni** (J. K. Townsend)

AUDUBON WARBLER

*Dendroica auduboni* (1) Grinnell, Pasadena Acad. Sci., 1, 1897, p. 20. (2) Grinnell, Auk, xv, 1898, p. 236. (3) Mailliard, Bull. Cooper Orn. Club, 1, 1899, p. 45. (4) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142. (5) Richardson, Condor, x, 1908, p. 68. (6) Linton, Condor, x, 1908, p. 86. (7) van Rossem, Condor, xi, 1909, p. 208. (8) Howell and van Rossem, Condor, xiii, 1911, p. 210. (9) Grinnell, Pac. Coast Avif., 11, 1915, p. 148.

Audubon Warbler (10) Grinnell, Bull. Cooper Orn. Club, 1, 1899, p. 17.

Abundant winter visitant. Arrives in October and leaves in April. A. van Rossem ( $\gamma$ ) found this species very common on the Coronados the first week in April, 1909, and we noted it on San Clemente up to the same time in 1915. It was very numerous on Catalina during my several visits in April, especially so in 1911, while during December, 1897, J. Grinnell (10) says that it was even on the beaches, busily engaged in flycatching within a few feet of the surf. On Santa Cruz, A. van Rossem and I (8) found a few still present the last week in April, 1911.

169. ***Dendroica magnolia*** (Wilson)

MAGNOLIA WARBLER

*Dendroica maculosa* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 7.

*Dendroica magnolia* (2) Willett, Pac. Coast Avif., 7, 1912, p. 96. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 148.

J. Grinnell (1) shot an adult male of this species on Santa Barbara Island, May 15, 1897. It was the only one seen.

170. ***Dendroica nigrescens*** (J. K. Townsend)

BLACK-THROATED GRAY WARBLER

*Dendroica nigrescens* (1) Dawson, Condor, xvii, 1915, p. 204.

In a little canyon on Santa Cruz Island, W. L. Dawson (1) obtained a close view of two singing males on the morning of April 19, 1915.

171. ***Dendroica townsendi*** (J. K. Townsend)

TOWNSEND WARBLER

*Dendroica townsendi* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 7. (2) Linton, Condor x, 1908, p. 128. (3) Linton, Condor, xi, 1909, p. 194. (4) Willett, Pac. Coast Avif., 7, 1912, p. 97. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 149.

Probably a regular migrant, although not common. An occasional individual may spend the winter. On San Clemente Island, C. B. Linton (3) shot a Townsend Warbler while it was flying along the beach, in December, 1908. H. Gaylord and J. Grinnell (1) each shot a female on Santa Barbara Island, May 16, 1897, and Linton (2) secured a bird on Santa Cruz, December 13, 1907.

172. ***Dendroica occidentalis*** (J. K. Townsend)

HERMIT WARBLER

*Dendroica occidentalis* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 7. (2) Willett, Pac. Coast Avif., 7, 1912, p. 97. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 149.

H. Gaylord (1) took an adult female on Santa Barbara Island, May 14, 1897, and he and J. Grinnell saw three more the same day.

173. ***Geothlypis trichas arizela*** Oberholser

PACIFIC YELLOWTHROAT

Yellowthroat (1) Howell, Condor, xii, 1910, p. 187.

Accidental on the islands. While on the Coronados, June 11, 1910, I (1) encountered two yellowthroats on a dry hillside. They were not at all wary and I had an excellent opportunity of observing them, but was at the time without a gun. When I recorded this I stated the opinion of another to the effect that they probably were not *arizela*, but I now feel no hesitation in referring them to that race. On San Clemente, in a canyon thickly overgrown with succulent vines, I clearly saw a male yellowthroat, March 23, 1915, as it flitted before me and became lost in the thick growth. It was probably this form.

174. **Wilsonia pusilla pileolata** (Pallas)

PILEOLATED WARBLER

*Myiodioctes pusillus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, pp. 78, 80.

*Sylvania pusilla pileolata* (2) Grinnell, Pasadena Acad. Sci., i, 1897, p. 8.

*Wilsonia pusilla pileolata* (3) Grinnell, Condor, v, 1903, p. 80. (4) Willett, Pac. Coast Avif., 7, 1912, p. 98. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 152.

Rather uncommon migrant. J. G. Cooper (1) recorded what was probably this subspecies from Catalina Island in October, 1863. On Santa Barbara Island, May 14, 15 and 16, 1897, J. Grinnell and H. Gaylord (2) noted several each day in the weeds of a small ravine. Two males and three females were taken.

175. **Anthus rubescens** (Tunstall)

PIPIT

*Anthus pensilvanicus* (1) Linton, Condor, x, 1908, p. 86. (2) Linton, Condor, x, 1908, p. 128.

*Anthus rubescens* (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 153.

Fairly rare winter visitant. C. B. Linton (1) shot a specimen on San Clemente, October 18, 1907, and (2) saw several on Santa Cruz Island during November and December of the same year.

176. **Mimus polyglottos leucopterus** (Vigors)

WESTERN MOCKINGBIRD

*Mimus polyglottos* (1) Belding, Land Birds Pac. Dist., 1890, p. 226. (2) Grinnell, Pasadena Acad. Sci., i, 1897, p. 20. (3) Grinnell, Auk, xv, 1898, p. 234. (4) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 42. (5) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 233.

Mockingbird (6) Grinnell, Bull. Cooper Orn. Club, i, 1899, p. 17.

*Mimus polyglottos leucopterus* (7) Breninger, Auk, xxi, 1904, p. 223. (8) Richardson, Condor, viii, 1906, p. 56. (9) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142. (10) Ridgway, Birds North & Mid. Am., iv, 1907, p. 229. (11) Richardson, Condor, x, 1908, p. 68. (12) Linton, Condor, x, 1908, p. 86. (13) Linton, Condor, x, 1908, p. 128. (14) A. O. U. Check-list, 3d ed., 1910, p. 331. (15) Burt, Condor, xiii, 1911, p. 166. (16) Grinnell, Auk, xxviii, 1911, p. 294. (17) Willett, Pac. Coast Avif., 7, 1912, p. 100. (18) Grinnell, Pac. Coast Avif., 11, 1915, p. 153.

Common resident of San Clemente, Santa Catalina and Santa Cruz islands. Occurs also on Anacapa. On San Clemente, during 1903, G. F. Breninger (7) found this species breeding sparingly, about half a dozen pairs being on the isl-



and, but the birds have evidently increased amazingly since that time, for now they are commoner than I have ever seen them elsewhere. Several nests held small young before the first of April, 1915, and a number with eggs were found by us. J. Grinnell (2) states that birds from this island at least are lighter dorsally than those from the mainland, and this also holds good in the case of my single specimen. I have found mockingbirds common on Catalina in the early spring, and Grinnell (6) says that in December, 1908, they were feeding on the fruit of the cholla cactus, which had stained their faces bright red. C. H. Richardson (11) here heard one imitating the call of a Western Gull.

H. C. Burt (15) heard one singing on Anacapa, March 16, 1911. Near Prisoner's Harbor, Santa Cruz Island, A. van Rossem and I found them to be rather rare, only two being encountered during our stay in the spring of 1911, but C. B. Linton (13) reported them fairly common in November and December of 1907.

177. **Salpinctes obsoletus obsoletus** (Say)

ROCK WREN

*Salpinctes obsoletus* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Henshaw, Rep. Wheeler Surv., 1876, p. 231. (3) Streater, Orn. & Ool., xiii, 1888, p. 54. (4) Belding, Land Birds Pac. Dist., 1890, p. 229. (5) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 141. (6) Keeler, Zool., i, 1891, p. 339. (7) Grinnell, Pasadena Acad. Sci., i, 1897, pp. 8, 20. (8) Grinnell, Auk, xv, 1898, p. 236. (9) Mailliard, Bull. Cooper Orn. Club, i, 1899, pp. 41, 45. (10) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 233. (11) Grinnell, Pac. Coast Avif., 3, 1902, p. 68. (12) Grinnell and Daggett, Auk, xx, 1903, pp. 33, 37. (13) Breninger, Auk, xxi, 1904, p. 223. (14) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141. (15) Linton, Condor, x, 1908, p. 128. (16) Grinnell, Condor, x, 1908, p. 130. (17) Wright, Condor, xi, 1909, p. 100. (18) Osburn, Condor, xi, 1909, p. 138. (19) Willett, Condor, xii, 1910, p. 171.

*Salpinctes pulverius* (20) Grinnell, Pac. Coast Avif., 3, 1902, p. 68.

*Salpinctes obsoletus obsoletus* (21) Ridgway, Birds North & Mid. Am., iii, 1904, p. 646. (22) A. O. U. Check-list, 3d ed., 1910, p. 336. (23) Willett, Pac. Coast Avif., 7, 1912, p. 101. (24) Wright and Snyder, Condor, xv, 1913, p. 92. (25) Swarth, Condor, xvi, 1914, p. 211. (26) Grinnell, Pac. Coast Avif., 11, 1915, p. 156.

*Salpinctes obsoletus pulverius* (27) Linton, Condor, x, 1908, p. 86.

Common resident on all the islands except San Nicolas. On the Coronados I have frequently met with this species on all four islands. Most numerous well back from the shore and towards the tops of the islands. On San Clemente it is fairly common, and D. R. Dickey shot a juvenile as early as April 9, 1915. During my several visits to Catalina in the spring, these birds were almost rare, but J. Grinnell (MS) found them to be very common everywhere on the flats, as well as among the rocks, near Johnson Harbor the latter part of August, 1903. G. Willett (19) says they are common on Anacapa, and O. W. Howard (23) took a set of seven slightly incubated eggs there April 30, 1906. On May 1, 1908, I noted them in some numbers on Santa Barbara Island, and a couple of pairs were engaged in nest building, probably for the second time that year. Near Prisoner's Harbor, Santa Cruz, A. van Rossem and I found the species rare in the spring of 1911, but C. B. Linton (15) recorded it as fairly numerous there during November and December, 1907. There are single records of this bird

from San Miguel and Santa Rosa. G. Willett (19), in June, 1910, found it to be one of the commonest birds on San Miguel, and during the same month he noted it on Santa Rosa also.

J. Grinnell (20) at one time referred birds from San Clemente to *S. o. pulverius*, but H. S. Swarth (25), after having examined larger series, states that birds from that island are indistinguishable from those of the mainland.

178.

**Salpinctes obsoletus pulverius Grinnell**

## SAN NICOLAS ROCK WREN

- Salpinctes obsoletus* (1) Streater, Orn. & Ool., XIII, 1888, p. 54. (2) Keeler, Zoe, I, 1891, p. 340. (3) Grinnell, Pasadena Acad. Sci., I, 1897, p. 10.  
*Salpinctes obsoletus pulverius* (4) Grinnell, Auk, xv, 1898, p. 237. (5) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 443. (6) Ridgway, Birds North & Mid. Am., III, 1904, p. 649. (7) Linton, Condor, x, 1908, p. 129. (8) A. O. U. Committee, Auk, xxv, 1908, p. 350. (9) A. O. U. Check-list, 3d ed., 1910, p. 336. (10) Linton, Condor, XIII, 1911, p. 109. (11) Linton, Auk, xxviii, 1911, p. 489. (12) Willett, Pac. Coast Avif., 7, 1912, p. 101. (13) Grinnell, Pac. Coast Avif., 8, 1912, p. 17. (14) Swarth, Condor, xvi, 1914, p. 211. (15) Grinnell, Pac. Coast Avif., 11, 1915, p. 157.  
*Salpinctes pulverius* (16) Grinnell, Pac. Coast Avif., 3, 1902, p. 68.

Confined to San Nicolas Island where it is a common resident. Originally described by J. Grinnell (4) from birds taken on San Nicolas, May 19, 1897. Characterized as differing from *obsoletus* in larger feet and bill, and more buffy coloration. H. S. Swarth (14), after assembling all available specimens of this genus from the Pacific Coast, states that although the buffy coloration is very pronounced in San Nicolas specimens with worn and abraded plumage, it is merely an adventitious acquisition and one that cannot be regarded as a subspecific character, for birds taken in freshly acquired autumnal plumage are indistinguishable in color and pattern from mainland birds in similar feather. He thus comes to the conclusion that the only subspecific difference is a slightly greater length of culmen.

J. Grinnell (3) found these birds shy, and the adults especially, hard to approach. They were very numerous over the whole island, but unusually so along the dry watercourses. From May 19 to 26, 1897, he found juvenals more abundant than adults. As G. Willett (12) discovered a nest in a sandstone cliff containing a single fresh egg, as late as June 24, 1911, they must raise at least two broods each year. On April 14, 1911, C. B. Linton (7) noted a pair carrying nesting material into a crack under the eaves of a storehouse close to where sheep were being sheared, but like the mainland bird, the usual site chosen is a pocket in a boulder or cliff. A set of six incubated eggs collected by H. Gaylord from a crack in a clayey bank of a gully, May 22, 1897, average .80x.64 inches.

179.

**Catherpes mexicanus conspersus Ridgway**

## CANYON WREN

- Catherpes mexicanus conspersus* (1) van Rossem, Condor, xi, 1909, p. 208.

On the Coronados, March 29, 1909, A. van Rossem (1) shot an adult male *Catherpes* which J. Grinnell pronounced *C. m. polioptilus*, stating that it was

nearer *conspersus* than *punctulatus*. This specimen is now in my collection, and is even lighter than any examples of *conspersus* which I have.

180. **Catherpes mexicanus punctulatus** Ridgway

DOTTED CANYON WREN

*Catherpes mexicanus punctulatus* (1) Linton, Condor, x, 1908, p. 128. (2) Willett, Pac. Coast Avif., 7, 1912, p. 101. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 157.

C. B. Linton (1) shot one of these birds on Santa Cruz Island, December 19, 1907.

181. **Thryomanes bewicki charienturus** Oberholser

SAN DIEGO WREN

*Thryothorus bewickii* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

*Thryomanes bewickii spilurus* (2) Blake, Auk, iv, 1887, p. 330. (3) Grinnell, Auk, xv, 1898, pp. 234, 236. (4) Mailliard, Bull. Cooper Orn. Club, i, 1899, p. 42. (5) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 446.

*Thryothorus bewickii bairdi* (6) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 140. (7) Keeler, Zoe, i, 1891, p. 339.

*Thryomanes bewickii charienturus* (8) Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 435. (9) Allen, Auk, xvi, 1899, p. 346. (10) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 233. (11) A. O. U. Committee, Auk, xviii, 1901, p. 307. (12) Ridgway, Birds North & Mid. Am., iii, 1904, p. 561.

*Thryomanes bewickii nesophilus* (13) Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 442. (14) Allen, Auk, xvi, 1899, p. 350. (15) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 234. (16) A. O. U. Committee, Auk, xviii, 1901, p. 314. (17) Ridgway, Birds North & Mid. Am., iii, 1904, p. 562.

Vigors Wren (18) Grinnell, Bull. Cooper Orn. Club, i, 1899, p. 17.

*Thryomanes nesophilus* (19) Grinnell, Pac. Coast Avif., 3, 1902, p. 69. (20) Linton, Condor, x, 1908, p. 128.

*Thryomanes bewicki charienturus* (21) Richardson, Condor, x, 1908, p. 68. (22) A. O. U. Check-list, 3d ed., 1910, p. 339. (23) Howell and van Rossem, Condor, xiii, 1911, p. 210.

*Thryomanes bewicki catalinae* (24) Grinnell, Univ. Calif. Pub. Zool., v, 1910, p. 308. (25) Willett, Pac. Coast Avif., 7, 1912, p. 102. (26) Grinnell, Pac. Coast Avif., 8, 1912, p. 16. (27) A. O. U. Committee, Auk, xxix, 1912, p. 387. (28) Grinnell, Pac. Coast Avif., 11, 1915, p. 158. (29) Swarth, Proc. Calif. Acad. Sci., 4th Ser., vi, no. 4, 1916, p. 78.

*Thryomanes bewicki nesophilus* (30) Grinnell, Univ. Calif. Pub. Zool., v, 1910, p. 308. (31) Willett, Pac. Coast Avif., 7, 1912, p. 102. (32) Grinnell, Pac. Coast Avif., 8, 1912, p. 17. (33) Wright and Snyder, Condor, xv, 1913, p. 92. (34) Grinnell, Pac. Coast Avif., 11, 1915, p. 158. (35) Swarth, Proc. Calif. Acad. Sci., 4th Ser. vi, no. 4, 1916, p. 78.

Common resident of Catalina, Santa Cruz and Santa Rosa islands. J. Grinnell (24) described a subspecies from Catalina, the type being an adult male taken by him December 24, 1897. Its characters as given are: darker coloration dorsally than *charienturus*, with heavier bill and larger feet. From *leucophrys* it differs in being darker and less ashy, with more heavily barred undertail coverts. The differences are rather slight, although constant in all specimens which I have examined, and it was rejected by the A. O. U. Committee (27).

In habits the Catalina wren is very similar to that of the mainland, being met with in the dry, heavy brush and in the wooded canyon bottoms. The birds prefer to breed in the latter places, selecting a knot hole or crack in a tree trunk, and in such a situation, on April 11, 1911, I found a nest which held one fresh egg. The species has been ascribed to Santa Barbara and San Nicolas islands by J. G. Cooper (1), but no one has since reported it from either place.

Another subspecies, *T. b. nesophilus* was described by H. C. Oberholser (13) from a bird taken on Santa Cruz Island by C. H. Townsend, February 7, 1889. From *charienturus* it is said to differ in being darker and more rufescent above, and from *spilurus* in being lighter and grayer with a longer bill. H. S. Swarth (35) states that he finds birds from Santa Cruz Island most nearly like *charienturus*, and that the difference is very slight indeed, specimens being practically indistinguishable from birds that occupy the intermediate coastal region between the ranges of *charienturus* and *spilurus*. It is inferred that this applies also to the wrens of Santa Rosa Island.

On Santa Cruz these wrens may be met with wherever fairly dense brush occurs. J. Mailliard (4) states that they have but one song, sounding different from that of their mainland cousins, who have several. In this locality during the latter part of April, 1911, A. van Rossem and I found a nest containing half grown young among the rafters of a small shack.

182.

**Thryomanes leucophrys** (Anthony)

## SAN CLEMENTE WREN

- Thryothorus bewickii* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.  
*Thryothorus bewickii bairdi* (2) Townsend, Proc. U. S. Nat. Mus., xiii, 1890, p. 140. (3) Keeler, Zoe, i, 1891, p. 340.  
*Thryothorus leucophrys* (4) Anthony, Auk, xii, 1895, p. 51. (5) A. O. U. Committee, Auk, xii, 1895, p. 166. (6) Grinnell, Pasadena Acad. Sci., i, 1897, p. 21. (7) Davie, Nests and Eggs N. Am. Birds, 5th ed., 1898, p. 473.  
*Thryomanes bewickii leucophrys* (8) Oberholser, Proc. U. S. Nat. Mus., xxi, 1898, p. 443. (9) Ridgway, Birds North & Mid. Am., ii, 1904, p. 563. (10) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 141.  
*Thryomanes leucophrys* (11) Grinnell, Pac. Coast Avif., 3, 1902, p. 69. (12) Breninger, Auk, xxi, 1904, p. 221. (13) Bailey, Handb. Birds West. U. S., 2d ed., 1904, p. 448. (14) Reed, N. Am. Birds' Eggs, 1904, p. 316. (15) Linton, Condor, x, 1908, p. 86. (16) A. O. U. Check-list, 3d ed., 1910, p. 339. (17) Willett, Pac. Coast Avif., 7, 1912, p. 102.  
*T[Thryomanes]. leucophrys* (18) Coues, Key N. Am. Birds, 5th ed., 1903, p. 296.  
*Thryomanes bewickii leucophrys* (19) Grinnell, Univ. Calif. Pub. Zool., v, 1910, p. 308. (20) Grinnell, Pac. Coast Avif., 8, 1912, p. 16. (21) Grinnell, Pac. Coast Avif., 11, 1915, p. 158. (22) Swarth, Proc. Calif. Acad. Sci., 4th Ser., vi, no. 4, 1916, p. 79.

Abundant resident of San Clemente Island. Originally described by A. W. Anthony (4). Differs from *charienturus* in coloration being grayer, under tail coverts less heavily barred, and wing and bill decidedly longer. These wrens are evenly distributed over San Clemente, frequenting the densest thorn bushes and cactus patches, from the tops of which their loud clear song, differing but little from that of the mainland bird, is given. Before one is within good range of them they will casually hop down into the lower cactus, and it is very hard indeed

to make them show themselves again. If it is in a low thorn bush that they disappear, no amount of trampling will bring a bird forth, but as soon as one steps off the bush, out he pops and away to another one. I shot a juvenal with fully grown tail, April 2, 1915, and from then on the youngsters were not rare. The eggs have evidently never been discovered, but I believe that the nest is invariably built in the center of a dense patch of cactus. While I was trying to remove a dead bird from such a place, on March 29, and smashing the cactus as I went, I uncovered an unfinished nest, probably pertaining to this species. It was wedged under and between cactus leaves some eight inches above the ground, a three inch ball formed of soft fiber, and with the entrance on one side. Two days later when I returned, some little lining had been added, but the situation had been so disturbed that it was deserted before eggs were laid.

183. **Troglodytes aedon parkmani** Audubon

WESTERN HOUSE WREN

J. Grinnell (*MS*) secured an immature male on Santa Cruz Island, September 3, 1903.

184. **Nannus hiemalis pacificus** (Baird)

WESTERN WINTER WREN

*Nannus hiemalis pacificus* (1) Willett, *Pac. Coast Avif.*, 7, 1912, p. 102. (2) Grinnell, *Pac. Coast Avif.*, 11, 1915, p. 159.

The single record is that of a female taken by C. B. Linton (1) on Santa Cruz Island, October 23, 1908.

185. **Telmatodytes palustris paludicola** (Baird)

TULE WREN

On San Nicolas Island, during January, 1911, C. B. Linton (*MS*) found a pair of these birds about a spring. As he noted them at the same spot for several weeks, there is small chance that the identity was incorrect. Many specimens of marsh wrens taken in the lowlands of Los Angeles County during the winter months, however, are referable to *T. p. plesius*, so it is not impossible that the birds which Linton observed were of the latter race.

186. **Sitta canadensis** Linnaeus

RED-BREADED NUTHATCH

*Sitta canadensis* (1) Howell and van Rossem, *Condor*, XIII, 1911, p. 210. (2) Willett, *Pac. Coast Avif.*, 7, 1912, p. 104. (3) Grinnell, *Pac. Coast Avif.*, 11, 1915, p. 161.

During four or five trips to the wooded top of Santa Cruz Island during the latter part of April, 1911, A. van Rossem and I (1) saw a couple of dozen of these birds, and took six specimens. These average a very little smaller than birds from the mainland and the east, but are otherwise indistinguishable. On May 1 I watched an individual excavating a nesting site in a dead stub, so they evidently remain during the entire year. C. B. Linton (2) shot three October 3 and 4, 1908.

187. ***Psaltriparus minimus minimus*** (J. K. Townsend)

## COAST BUSH-TIT

*Psaltria minimus californicus* (1) Mailliard, Bull. Cooper Orn. Club, 1, 1899, p. 45.

*Psaltriparus minimus minimus* (2) Linton, Condor, x, 1908, p. 129. (3) Swarth, Auk, xxxi, 1914, p. 499. (4) Grinnell, Pac. Coast Avif., 11, 1915, p. 165.

*Psaltriparus minimus californicus* (5) Willett, Pac. Coast Avif., 7, 1912, p. 105. (6) Wright and Snyder, Condor, xv, 1913, p. 92.

Common resident of Santa Cruz Island, and occurs on Catalina. In the brushy oak timber and on the canyon sides of Santa Cruz, these tiny birds are often met with. During late April, 1911, A. van Rossem and I found them to be rather common. H. Wright and G. K. Snyder (6) noted a flock in the brush, July 7, 1912, and C. B. Linton (2) recorded several seen during November and December, 1907. G. Willett (MS) says he has seen quite a few in the western oak region of Catalina in the springs of 1904 and 1905.

H. S. Swarth (3), in his paper relating to this genus, reports conclusively that the island bird is *minimus* and not *californicus* as some times recorded.

188. ***Regulus satrapa olivaceus*** Baird

## WESTERN GOLDEN-CROWNED KINGLET

*Regulus satrapa olivaceus* (1) Willett, Pac. Coast Avif., 7, 1912, p. 105. (2) Grinnell, Pac. Coast Avif., 11, 1915, p. 167.

C. B. Linton (1) shot a pair on Santa Cruz Island, October 21, 1908.

189. ***Regulus calendula calendula*** (Linnaeus)

## RUBY-CROWNED KINGLET

*Regulus calendula* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78. (2) Grinnell, Auk, xv, 1898, p. 236. (3) Linton, Condor, x, 1908, p. 129.

*Regulus calendula calendula* (4) Willett, Pac. Coast Avif., 7, 1912, p. 106.

Probably a regular but fairly rare winter visitant to suitable localities. J. Grinnell (2) noted a very few of these birds on Catalina the last of December, 1897, and C. B. Linton (3) found them rather common on Santa Cruz during November and December, 1907.

190. ***Polioptila caerulea obscura*** Ridgway

## WESTERN GNATCATCHER

*Polioptila melanura* (1) Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

*Polioptila caerulea obscura* (2) Linton, Condor, x, 1908, p. 129. (3) Osburn, Condor, xi, 1909, p. 138. (4) Willett, Pac. Coast Avif., 7, 1912, p. 106. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 168.

Rather rare on Catalina and Santa Cruz islands, but probably resident. G. Willett (MS) occasionally met with them on the western part of Catalina during March, 1905. The specimen, now in the Berkeley Museum of Vertebrate Zoology, which J. G. Cooper (1) took on Catalina in 1861, and which he labelled *P. melanura*, proves to be *obscura*. C. B. Linton and G. Willett (2) heard gnatcatchers several times on Santa Cruz Island in November and December, 1907, and a male was secured October 21, 1908.

191. **Hylocichla ustulata ustulata** (Nuttall)

## RUSSET-BACKED THRUSH

*Turdus ustulatus* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 8.

*Hylocichla ustulata* (2) Linton, Condor, x, 1908, p. 86.

*Hylocichla ustulata ustulata* (3) Linton, Condor, x, 1908, p. 129. (4) Willett, Pac. Coast Avif., 7, 1912, p. 107. (5) Grinnell, Pac. Coast Avif., 11, 1915, p. 169.

Probably a fairly common transient. C. B. Linton (2) states that on San Clemente during October, 1907, these birds were common in the larger canyons. On Santa Barbara, J. Grinnell (1) saw three and secured a female, May 16, 1897. Linton (3) also shot one on Santa Cruz Island in the late fall of 1907.

192. **Hylocichla guttata guttata** (Pallas)

## ALASKA HERMIT THRUSH

*Turdus aonalaschkae* (1) Grinnell, Pasadena Acad. Sci., I, 1897, p. 21. (2) Grinnell, Auk, xv, 1898, p. 236.

*Hylocichla aonalaschkae* (3) Mailliard, Bull. Cooper Orn. Club, I, 1899, p. 45. (4) Oberholser, Proc. U. S. Nat. Mus., xxii, 1900, p. 234.

*Hylocichla guttata* (5) Mearns, Bull. U. S. Nat. Mus., lvi, 1907, p. 142.

Visits the islands in small numbers during the winter. J. Grinnell (MS) took a female on San Clemente, March 28, 1897, and two males on Catalina, December 24 and 28, respectively, of the same year. H. C. Oberholser (4) mentions a typical female as having been taken by C. P. Streater on Catalina in April, 1892, and I shot a specimen on Santa Cruz Island, April 27, 1911. These are all the island specimens which I can locate.

193. **Planesticus migratorius propinquus** (Ridgway)

## WESTERN ROBIN

*Planesticus migratorius propinquus* (1) Dawson, Condor, xvii, 1915, p. 204.

Casual on the islands. H. Linton told G. Willett (MS) that he had seen a robin on San Nicolas during the winter of 1912. While we were preparing breakfast on San Clemente, April 7, 1915, a single bird flew close above D. R. Dickey and myself, and lit on a rock a hundred yards away. By the time I had secured my gun it had disappeared. W. L. Dawson (1) noted a few on Santa Cruz Island during the first part of April, 1915.

194. **Ixoreus naevius meruloides** (Swainson)

## NORTHERN VARIED THRUSH

*Ixoreus naevius* (1) Linton, Condor, x, 1908, p. 86.

*Ixoreus naevius meruloides* (2) Willett, Pac. Coast Avif., 7, 1912, p. 109. (3) Grinnell, Pac. Coast Avif., 11, 1915, p. 172.

*Ixoreus naevius naevius* (4) Dawson, Condor, xvii, 1915, p. 204.

Visits the islands in limited numbers during the winter months. Several specimens were taken by C. B. Linton (1) on San Clemente Island from January to April, 1907, and W. L. Dawson (4) noted a single bird, April 5, 1915, and another on the following day, on Santa Cruz.

195. ***Sialia mexicana occidentalis*** J. K. Townsend

## WESTERN BLUEBIRD

*Sialia mexicana occidentalis* (1) Linton, Condor, xi, 1909, p. 194. (2) Willett, Pac. Coast Avif., 7, 1912, p. 109.

Rare migrant. C. B. Linton (1) secured an adult male on San Clemente Island in December 1908, and I saw a single bird on Santa Barbara as late as May 1, 1908.

## HYPOTHETICAL LIST

1. ***Priocella glacialoides*** (A. Smith)

## SLENDER-BILLED FULMAR

*Fulmarus glacialoides* Baird, Brewer and Ridgway, Water Birds N. Am., ii, 1884, p. 374.

A skeleton was found on Catalina Island by J. G. Cooper, which he ascribed to this species. Systematic collecting off the islands should produce records of this bird, but the above instance of its occurrence is inconclusive.

2. ***Oceanites oceanicus*** (Kuhl)

## WILSON PETREL

*Oceanites oceanicus* Cooper, Proc. Calif. Acad. Sci., iv, 1868, p. 11.

J. G. Cooper saw a white-rumped petrel near San Nicolas Island in July, 1863, which he ascribed to this form. In all probability a case of mistaken identity.

3. ***Marila affinis*** (Eyton)

## LESSER SCAUP DUCK

*Aythya affinis* Linton, Condor, x, 1908, p. 83.

On San Clemente Island during February, 1907, C. B. Linton saw several ducks which he believed to be of this species. I personally believe it very likely that the species is occasionally found about the islands, but as Linton himself is not at all sure of his identification of the birds seen, I have thought it best to relegate the record to the hypothetical list.

4. ***Branta canadensis***, subsp.

On Santa Cruz Island, April 25, 1911, a single goose of this group flew over A. van Rossem. He is of the opinion that it was *B. c. hutchinsi*, and it seems likely that such was the case.

5. ***Totanus flavipes*** (Gmelin)

## YELLOWLEGS

C. C. Lamb informs me that while he and R. H. Beck were on the Coronados, April 11, 1908, the latter shot a yellowlegs which they believed was small enough



for this species, rather than the larger *T. melanoleucus*, but the present location of the specimen is unknown.

6. **Micropallas whitneyi** (J. G. Cooper)

ELF OWL

*Microthene whitneyi* ? Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77.

J. G. Cooper thought that he heard an owl one night on Santa Barbara Island, and ascribed the sound to this species, provisionally. Its occurrence is extremely improbable.

7. **Geococcyx californianus** (Lesson)

ROAD-RUNNER

*Geococcyx californianus* Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77. Grinnell, Condor, ix, 1907, p. 52.

J. G. Cooper reported this bird from Catalina Island, but J. Grinnell, in his article on the California distribution of the species, states that he does not know of its occurrence on any of the islands. It is possible that during the sixties it occurred on Catalina and has since become extirpated, but as none has been reported since, it is safer to conclude that there was some mistake in regard to the first record.

8. **Dryobates nuttalli** (Gambel)

NUTTALL WOODPECKER

*Picus nuttalli* ? Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 77.

J. G. Cooper listed this bird from Catalina, but mentions that he is uncertain in regard to it.

9. **Zonotrichia leucophrys nuttalli** Ridgway

NUTTALL SPARROW

*Zonotrichia leucophrys nuttalli* Dawson, Condor, xvii, 1915, p. 204.

W. L. Dawson states that while on Santa Cruz Island during the middle of April, 1915, "individuals of this small dark type were seen at close range". This subspecies is too hard to distinguish in life for a sight record to be conclusive.

10. **Progne subis hesperia** Brewster

WESTERN MARTIN

*Progne purpurea* ? Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

Recorded provisionally from Catalina by J. G. Cooper.

11. **Riparia riparia** (Linnaeus)

BANK SWALLOW

*Clivicola riparia* Streater, Orn. & Ool., xiii, 1888, p. 54.

Reported from San Miguel in 1886 by C. P. Streater. Although it is by no

means impossible that this species may occur upon the islands occasionally, the above unsubstantiated record is inconclusive.

12. **Vireosylva gilva swainsoni** (Baird)

WESTERN WARBLING VIREO

*Vireosylva gilva swainsoni* Dawson, Condor, xvii, 1915, p. 204.

W. L. Dawson states that he heard one of these birds on Santa Cruz during the morning of April 4, 1915. This identification is too uncertain to stand as a record.

13. **Hylocichla guttata nanus** (Audubon)

DWARF HERMIT THRUSH

*Turdus nanus* Cooper, Proc. Calif. Acad. Sci., iv, 1870, p. 78.

*Hylocichla guttata nana* Richardson, Condor, x, 1908, p. 68. Linton, Condor, x, 1908, p. 86. Linton, Condor, x, 1908, p. 129.

*Hylocichla guttata nanus* Willett, Pac. Coast Avif., 7, 1912, p. 108.

It is with considerable hesitation that I place this subspecies in the hypothetical list. The presence of *nanus* upon the islands in winter is to be expected, and there are several records of its occurrence, but I can learn of no definitely identified specimens ever having been taken, and so must include the form conditionally.

#### TABULATION OF SPECIES BY ISLANDS

To facilitate comparison of the avifauna of the several islands, I have prepared the following table. Although there are many species which certainly occur on all the islands, though recorded from but a few, I have not taken this fact into account, having marked with an asterisk (\*) only those birds which have been definitely reported from the several islands.

|                                   | Los Coronados Id. | San Clemente Id. | San Nicolas Id. | Santa Catalina Id. | Santa Barbara Id. | Anacapa Id. | Santa Cruz Id. | Santa Rosa Id. | San Miguel Id. |
|-----------------------------------|-------------------|------------------|-----------------|--------------------|-------------------|-------------|----------------|----------------|----------------|
| 1. Aechmophorus occidentalis      | *                 | *                |                 |                    | *                 |             | *              |                |                |
| 2. Colymbus auritus               |                   | *                | *               | *                  |                   |             | *              |                |                |
| 3. Colymbus n. californicus       |                   | *                |                 | *                  |                   |             | *              |                |                |
| 4. Podilymbus podiceps            |                   | *                |                 |                    |                   |             | *              |                |                |
| 5. Gavia immer                    |                   | *                |                 |                    |                   |             | *              |                |                |
| 6. Gavia pacifica                 |                   | *                |                 | *                  |                   |             | *              |                |                |
| 7. Gavia stellata                 |                   |                  |                 |                    |                   |             | *              |                |                |
| 8. Lunda cirrhata                 |                   |                  | *               | *                  | *                 | *           | *              |                | *              |
| 9. Cerorhinca monocerata          | *                 | *                |                 | *                  | *                 |             | *              |                |                |
| 10. Ptychoramphus aleuticus       | *                 | *                |                 | *                  | *                 | *           | *              |                | *              |
| 11. Synthliboramphus antiquus     |                   | *                |                 | *                  |                   |             | *              |                |                |
| 12. Brachyramphus hypoleucus      | *                 | *                |                 |                    | *                 | *           | *              |                |                |
| 13. Brachyramphus craveri         | *                 |                  |                 |                    |                   |             | *              |                |                |
| 14. Cepphus columba               |                   | *                | *               | *                  | *                 | *           | *              |                | *              |
| 15. Uria t. californica           |                   |                  |                 |                    |                   |             | *              |                | *              |
| 16. Rissa t. pollicaris           | *                 |                  |                 |                    |                   |             | *              |                |                |
| 17. Larus glaucescens             |                   | *                |                 | *                  |                   |             | *              |                |                |
| 18. Larus occidentalis            | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 19. Larus argentatus              |                   | *                |                 | *                  |                   |             | *              |                |                |
| 20. Larus californicus            |                   | *                |                 |                    |                   |             | *              |                |                |
| 21. Larus delawarensis            |                   |                  |                 | *                  |                   |             | *              |                |                |
| 22. Larus brachyrhynchus          |                   |                  |                 | *                  |                   |             | *              |                |                |
| 23. Larus heermanni               | *                 | *                | *               | *                  | *                 |             | *              |                | *              |
| 24. Larus philadelphia            |                   |                  |                 |                    |                   |             | *              |                |                |
| 25. Xema sabini                   | *                 |                  |                 |                    | *                 |             | *              |                |                |
| 26. Sterna maxima                 | *                 | *                | *               | *                  |                   |             | *              |                | *              |
| 27. Sterna forsteri               | *                 |                  |                 | *                  |                   |             | *              |                |                |
| 28. Diomedea nigripes             |                   | *                | *               | *                  | *                 |             | *              |                |                |
| 29. Diomedea albatrus             |                   | *                | *               | *                  |                   |             | *              |                |                |
| 30. Fulmarus g. glupischa         |                   | *                | *               | *                  |                   | *           | *              |                |                |
| 31. Puffinus creatopus            | *                 | *                | *               | *                  |                   | *           | *              | *              |                |
| 32. Puffinus opisthomelas         | *                 | *                | *               | *                  |                   | *           | *              | *              |                |
| 33. Puffinus griseus              | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 34. Oceanodroma kaedingi          |                   | *                |                 |                    |                   |             | *              |                |                |
| 35. Oceanodroma melania           | *                 | ?                | ?               |                    |                   | *           | *              |                |                |
| 36. Oceanodroma homochroa         |                   |                  | *               |                    | *                 |             | *              |                | *              |
| 37. Oceanodroma socorroensis      | *                 |                  |                 |                    |                   |             | *              |                |                |
| 38. Phalacrocorax a. albociliatus | *                 | *                | *               | *                  | *                 | *           | *              |                | *              |
| 39. Phalacrocorax penicillatus    | *                 | *                | *               | *                  | *                 | *           | *              |                | *              |
| 40. Phalacrocorax p. resplendens  | *                 | *                | *               | *                  | *                 | *           | *              |                | *              |
| 41. Pelecanus californicus        | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 42. Fregata aquila                | *                 |                  |                 | *                  |                   |             | *              |                |                |
| 43. Mergus serrator               |                   | *                |                 | *                  |                   |             | *              |                |                |
| 44. Dafila acuta                  |                   | *                |                 |                    |                   |             | *              |                |                |
| 45. Oidemia americana             |                   |                  |                 | *                  |                   |             | *              |                |                |
| 46. Oidemia deglandi              |                   |                  |                 | *                  |                   |             | *              |                | *              |
| 47. Oidemia perspicillata         |                   | *                |                 | *                  |                   |             | *              | *              | *              |
| 48. Chen h. hyperboreus           |                   |                  |                 |                    |                   |             | *              |                |                |
| 49. Anser a. gambeli              |                   |                  |                 |                    |                   | ?           | *              | *              |                |
| 50. Ardea h. herodias             | *                 | *                | *               | *                  |                   | *           | *              |                |                |
| 51. Butorides v. anthonyi         | *                 |                  |                 |                    |                   |             | *              |                |                |
| 52. Nycticorax n. naevius         |                   | *                |                 |                    |                   |             | *              |                |                |
| 53. Porzana carolina              |                   | *                |                 |                    |                   |             | *              |                |                |
| 54. Fulica americana              |                   |                  |                 |                    |                   |             | *              |                |                |
| 55. Phalaropus fulicarius         |                   | *                | *               | *                  |                   | *           | *              |                |                |
| 56. Lobipes lobatus               |                   |                  |                 |                    |                   |             | *              |                |                |

|  | Los Coronados Id. | San Clemente Id. | San Nicolas Id. | Santa Catalina Id. | Santa Barbara Id. | Anacapa Id. | Santa Cruz Id. | Santa Rosa Id. | San Miguel Id. |
|--|-------------------|------------------|-----------------|--------------------|-------------------|-------------|----------------|----------------|----------------|
| 57. <i>Recurvirostra americana</i>         |                   |                  |                 |                    |                   |             | *              |                |                |
| 58. <i>Himantopus mexicanus</i>            |                   |                  | *               |                    |                   |             |                |                |                |
| 59. <i>Macrorhamphus g. scolopaceus</i>    |                   | *                |                 |                    |                   |             |                |                |                |
| 60. <i>Pisobia bairdi</i>                  |                   | *                |                 |                    |                   |             |                |                |                |
| 61. <i>Pisobia minutilla</i>               |                   | *                | *               | *                  |                   |             | *              |                |                |
| 62. <i>Ereunetes mauri</i>                 |                   | *                |                 |                    |                   |             |                |                |                |
| 63. <i>Calidris leucophaea</i>             |                   | *                | *               |                    |                   |             | *              |                |                |
| 64. <i>Totanus melanoleucus</i>            |                   |                  |                 |                    |                   |             | *              |                |                |
| 65. <i>Helodromas s. cinnamomeus</i>       |                   | *                | *               |                    |                   |             | *              |                |                |
| 66. <i>Catoptrophorus s. inornatus</i>     |                   |                  | *               |                    |                   |             |                |                | *              |
| 67. <i>Heteractitis incanus</i>            | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 68. <i>Actitis macularia</i>               | *                 | *                | *               | *                  | *                 | *           | *              |                |                |
| 69. <i>Numenius hudsonicus</i>             | *                 | *                | *               |                    |                   |             | *              |                |                |
| 70. <i>Squatarola squatarola</i>           |                   | *                | *               | *                  |                   |             | *              |                |                |
| 71. <i>Oxyechus vociferus</i>              |                   | *                | *               |                    |                   |             | *              |                |                |
| 72. <i>Aegialitis semipalmata</i>          |                   | *                | *               |                    |                   |             | *              |                |                |
| 73. <i>Aegialitis nivosa</i>               |                   | *                | *               |                    |                   |             | *              |                | *              |
| 74. <i>Podasocys montanus</i>              |                   | *                |                 |                    |                   |             |                |                |                |
| 75. <i>Aphriza virgata</i>                 |                   |                  | *               | ?                  | ?                 |             |                |                | *              |
| 76. <i>Arenaria i. morinella</i>           |                   | *                | *               | *                  |                   |             | *              |                | *              |
| 77. <i>Arenaria melanocephala</i>          | *                 | *                | *               | *                  | *                 | *           | *              |                | *              |
| 78. <i>Haematopus frazari</i>              | *                 |                  |                 |                    | *                 |             |                |                |                |
| 79. <i>Haematopus bachmani</i>             | *                 |                  |                 |                    | *                 | *           | *              | *              | *              |
| 80. <i>Lophortyx c. vallicola</i>          | *                 | ?                |                 | *                  |                   |             | ?              |                |                |
| 81. <i>Zenaidura m. marginella</i>         |                   | *                | *               | *                  | *                 |             | *              |                |                |
| 82. <i>Circus hudsonius</i>                | *                 |                  |                 |                    |                   | *           | *              |                |                |
| 83. <i>Accipiter velox</i>                 |                   | *                |                 | *                  |                   |             | *              |                |                |
| 84. <i>Accipiter cooperi</i>               |                   |                  |                 |                    |                   |             | *              |                |                |
| 85. <i>Buteo borealis calurus</i>          |                   | *                |                 | *                  |                   |             | *              |                |                |
| 86. <i>Buteo swainsoni</i>                 |                   |                  |                 | *                  |                   |             | *              |                |                |
| 87. <i>Haliaeetus l. leucocephalus</i>     | *                 | *                | *               | *                  | *                 | *           | *              |                | *              |
| 88. <i>Falco mexicanus</i>                 |                   |                  |                 |                    |                   |             |                |                | *              |
| 89. <i>Falco p. anatum</i>                 | *                 | *                |                 | *                  | *                 | *           | *              |                | *              |
| 90. <i>Falco c. columbarius</i>            |                   | *                |                 |                    |                   |             | *              |                |                |
| 91. <i>Falco s. phalaena</i>               |                   | *                | *               |                    |                   | *           | *              |                | *              |
| 92. <i>Pandion h. carolinensis</i>         | *                 | *                | *               | *                  |                   |             | *              |                |                |
| 93. <i>Aluco pratincola</i>                | *                 |                  |                 |                    |                   | *           | *              |                |                |
| 94. <i>Asio wilsonianus</i>                | *                 | *                |                 | *                  |                   |             | *              |                |                |
| 95. <i>Asio flammeus</i>                   |                   |                  |                 | *                  |                   |             |                |                |                |
| 96. <i>Bubo v. pacificus</i>               |                   |                  |                 |                    |                   |             | *              |                |                |
| 97. <i>Speotyto c. hypogaea</i>            | *                 | *                | *               | *                  |                   | *           | *              |                | *              |
| 98. <i>Ceryle alcyon</i>                   | *                 | *                |                 | *                  |                   | *           | *              |                |                |
| 99. <i>Sphyrapicus r. ruber</i>            |                   | *                |                 | ?                  |                   |             | ?              |                |                |
| 100. <i>Asyndesmus lewisi</i>              |                   |                  |                 |                    |                   |             | *              |                |                |
| 101. <i>Colaptes c. collaris</i>           |                   |                  | *               | *                  |                   |             | *              |                |                |
| 102. <i>Phalaenoptilus n. californicus</i> |                   | *                |                 | *                  |                   | *           |                |                |                |
| 103. <i>Chordeiles a. texensis</i>         |                   |                  |                 |                    | *                 |             |                |                |                |
| 104. <i>Chaetura vauxi</i>                 |                   |                  |                 |                    |                   |             | *              |                |                |
| 105. <i>Aeronautas melanoleucus</i>        | *                 | *                | *               | *                  |                   | *           | *              |                |                |
| 106. <i>Calypte costae</i>                 | *                 | *                |                 |                    | *                 |             |                |                |                |
| 107. <i>Calypte anna</i>                   | *                 | *                |                 | *                  |                   |             | *              |                |                |
| 108. <i>Selasphorus alleni</i>             | *                 | *                |                 | *                  | *                 | *           | *              |                |                |
| 109. <i>Tyrannus verticalis</i>            |                   | *                |                 |                    |                   |             | *              |                |                |
| 110. <i>Tyrannus vociferans</i>            | *                 |                  |                 |                    |                   |             | *              |                |                |
| 111. <i>Myiarchus c. cinerascens</i>       |                   |                  |                 |                    |                   |             | *              |                |                |
| 112. <i>Sayornis sayus</i>                 |                   | *                | *               | *                  |                   |             | *              |                |                |

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|---|-------------------|------------------|-----------------|--------------------|-------------------|-------------|----------------|----------------|----------------|
| 113. <i>Sayornis nigricans</i> .....            |                   | *                | *               | *                  |                   |             | *              | *              |                |
| 114. <i>Myiochanes r. richardsoni</i> .....     | *                 | *                | *               |                    |                   |             | *              |                |                |
| 115. <i>Empidonax d. difficilis</i> .....       |                   | *                |                 | *                  |                   |             | *              |                |                |
| 116. <i>Empidonax t. trailli</i> .....          | *                 |                  |                 |                    |                   |             |                |                |                |
| 117. <i>Empidonax hammondi</i> .....            |                   | *                |                 | *                  | *                 |             | *              |                |                |
| 118. <i>Otocoris a. insularis</i> .....         |                   | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 119. <i>Aphelocoma insularis</i> .....          |                   |                  |                 |                    |                   |             | *              |                |                |
| 120. <i>Corvus c. sinuatus</i> .....            | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 121. <i>Molothrus a. obscurus</i> .....         | *                 |                  |                 |                    |                   |             |                |                |                |
| 122. <i>Xanthocephalus xanthocephalus</i> ..... |                   |                  |                 |                    |                   |             | *              |                |                |
| 123. <i>Sturnella neglecta</i> .....            |                   | *                |                 | *                  | *                 | *           | *              | *              | *              |
| 124. <i>Icterus c. nelsoni</i> .....            |                   |                  |                 | *                  |                   |             |                |                |                |
| 125. <i>Icterus bullocki</i> .....              | *                 | *                | *               |                    |                   |             | *              |                |                |
| 126. <i>Euphagus carolinus</i> .....            |                   | *                |                 |                    |                   |             |                |                |                |
| 127. <i>Euphagus cyanocephalus</i> .....        |                   |                  | *               | *                  |                   |             |                |                | *              |
| 128. <i>Carpodacus p. californicus</i> .....    |                   |                  |                 |                    |                   |             | *              |                |                |
| 129. <i>Carpodacus m. clementis</i> .....       | *                 | *                | *               | *                  | *                 | *           | *              | *              | *              |
| 130. <i>Loxia c. stricklandi</i> .....          |                   |                  |                 |                    |                   |             | *              |                |                |
| 131. <i>Passer domesticus</i> .....             |                   | *                |                 |                    |                   |             | *              |                |                |
| 132. <i>Astragalinus p. hesperophilus</i> ..... |                   |                  |                 | *                  |                   |             | *              |                |                |
| 133. <i>Astragalinus lawrencei</i> .....        |                   |                  |                 | *                  |                   |             | *              |                |                |
| 134. <i>Spinus pinus</i> .....                  |                   |                  |                 |                    |                   |             | *              |                |                |
| 135. <i>Passerculus s. alaudinus</i> .....      |                   | *                | *               |                    |                   |             | *              |                |                |
| 136. <i>Chondestes g. strigatus</i> .....       |                   |                  |                 |                    |                   |             | *              |                |                |
| 137. <i>Zonotrichia querula</i> .....           |                   | *                |                 |                    |                   |             |                |                |                |
| 138. <i>Zonotrichia l. gambeli</i> .....        | *                 | *                |                 | *                  | *                 |             | *              |                |                |
| 139. <i>Zonotrichia coronata</i> .....          |                   | *                |                 | *                  | *                 |             | *              |                |                |
| 140. <i>Spizella p. arizonae</i> .....          |                   | *                |                 | *                  |                   |             | *              | *              |                |
| 141. <i>Spizella* atrogularis</i> .....         |                   | *                |                 |                    |                   |             | *              |                |                |
| 142. <i>Junco h. thurberi</i> .....             |                   | *                | *               |                    |                   |             | *              |                |                |
| 143. <i>Amphispiza belli</i> .....              |                   | *                | *               |                    |                   |             |                | *              |                |
| 144. <i>Aimophila r. ruficeps</i> .....         |                   |                  |                 | *                  |                   |             | *              |                |                |
| 145. <i>Melospiza m. graminea</i> .....         |                   |                  |                 | ?                  | *                 |             | *              |                |                |
| 146. <i>Melospiza m. clementae</i> .....        | *                 | *                |                 |                    |                   |             |                | *              | *              |
| 147. <i>Melospiza l. lincolni</i> .....         |                   | *                |                 | *                  |                   |             | *              |                |                |
| 148. <i>Passerella i. unalaschensis</i> .....   |                   | *                |                 |                    |                   |             | *              |                |                |
| 149. <i>Passerella i. megarhyncha</i> .....     |                   | *                |                 | *                  |                   |             | *              |                |                |
| 150. <i>Passerella i. stephensi</i> .....       |                   |                  |                 | *                  |                   |             | *              |                |                |
| 151. <i>Passerella i. insularis</i> .....       |                   | *                |                 | *                  |                   |             | *              |                |                |
| 152. <i>Pipilo m. oregonus</i> .....            |                   | *                |                 |                    |                   |             |                |                |                |
| 153. <i>Pipilo m. clementae</i> .....           |                   | *                |                 | *                  | ?                 |             |                | *              |                |
| 154. <i>Pipilo m. megalonyx</i> .....           | ?                 |                  |                 |                    |                   |             | *              |                |                |
| 155. <i>Zamelodia melanocephala</i> .....       |                   |                  |                 |                    |                   |             | *              |                |                |
| 156. <i>Guiraca c. lazula</i> .....             |                   |                  |                 |                    |                   |             | *              |                |                |
| 157. <i>Passerina amoena</i> .....              |                   |                  |                 | *                  |                   |             | *              |                |                |
| 158. <i>Piranga ludoviciana</i> .....           | *                 | *                |                 |                    |                   |             | *              |                |                |
| 159. <i>Piranga r. cooperi</i> .....            |                   | *                |                 |                    |                   |             |                |                |                |
| 160. <i>Hirundo erythrogastra</i> .....         | *                 | *                |                 | *                  | *                 | *           | *              |                |                |
| 161. <i>Tachycineta t. lepida</i> .....         |                   | *                |                 |                    |                   |             | *              |                |                |
| 162. <i>Bombycilla cedrorum</i> .....           |                   | *                |                 |                    |                   |             | *              |                |                |
| 163. <i>Lanius l. anthonyi</i> .....            |                   | *                |                 | *                  | ?                 | *           | *              | *              |                |
| 164. <i>Vireo h. huttoni</i> .....              |                   |                  |                 | *                  |                   |             | *              |                |                |
| 165. <i>Vermivora c. celata</i> .....           |                   |                  |                 |                    |                   |             | *              |                |                |
| 166. <i>Vermivora c. sordida</i> .....          | *                 | *                |                 | *                  | ?                 | *           | *              | *              | *              |
| 167. <i>Dendroica coronata</i> .....            |                   | *                |                 |                    | *                 |             |                |                |                |

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|--|-------------------|------------------|-----------------|--------------------|-------------------|-------------|----------------|----------------|----------------|
| 168. <i>Dendroica auduboni</i> .....         | *                 | *                |                 | *                  |                   |             | *              |                |                |
| 169. <i>Dendroica magnolia</i> .....         |                   |                  |                 |                    | *                 |             |                |                |                |
| 170. <i>Dendroica nigrescens</i> .....       |                   |                  |                 |                    |                   |             | *              |                |                |
| 171. <i>Dendroica townsendi</i> .....        |                   | *                |                 |                    | *                 |             | *              |                |                |
| 172. <i>Dendroica occidentalis</i> .....     |                   |                  |                 |                    | *                 |             |                |                |                |
| 173. <i>Geothlypis t. arizela</i> .....      | *                 | *                |                 |                    |                   |             |                |                |                |
| 174. <i>Wilsonia p. pileolata</i> .....      |                   |                  |                 | *                  | *                 |             |                |                |                |
| 175. <i>Anthus rubescens</i> .....           |                   | *                |                 |                    |                   |             | *              |                |                |
| 176. <i>Mimus p. leucopterus</i> .....       |                   | *                |                 | *                  |                   | *           | *              |                |                |
| 177. <i>Salpinctes o. obsoletus</i> .....    | *                 | *                |                 | *                  | *                 | *           | *              | *              | *              |
| 178. <i>Salpinctes o. pulverius</i> .....    |                   |                  | *               |                    |                   |             |                |                | *              |
| 179. <i>Catherpes m. conspersus</i> .....    | *                 |                  |                 |                    |                   |             |                |                |                |
| 180. <i>Catherpes m. punctulatus</i> .....   |                   |                  |                 |                    |                   |             | *              |                |                |
| 181. <i>Thryomanes b. charienturus</i> ..... |                   |                  |                 | *                  |                   |             | *              | *              |                |
| 182. <i>Thryomanes leucophrys</i> .....      |                   | *                |                 |                    |                   |             |                |                |                |
| 183. <i>Troglodytes a. parkmani</i> .....    |                   |                  |                 |                    |                   |             | *              |                |                |
| 184. <i>Nannus h. pacificus</i> .....        |                   |                  |                 |                    |                   |             | *              |                |                |
| 185. <i>Telmatodytes p. paludicola</i> ..... |                   |                  | *               |                    |                   |             |                |                |                |
| 186. <i>Sitta canadensis</i> .....           |                   |                  |                 |                    |                   |             | *              |                |                |
| 187. <i>Psaltriparus m. minimus</i> .....    |                   |                  |                 | *                  |                   |             | *              |                |                |
| 188. <i>Regulus s. olivaceus</i> .....       |                   |                  |                 |                    |                   |             | *              |                |                |
| 189. <i>Regulus c. calendula</i> .....       |                   |                  |                 | *                  |                   |             | *              |                |                |
| 190. <i>Polioptila c. obscura</i> .....      |                   |                  |                 | *                  |                   |             | *              |                |                |
| 191. <i>Hylocichla u. ustulata</i> .....     |                   | *                |                 |                    | *                 |             | *              |                |                |
| 192. <i>Hylocichla g. guttata</i> .....      |                   | *                |                 | *                  |                   |             | *              |                |                |
| 193. <i>Planesticus m. propinquus</i> .....  |                   | *                | *               |                    |                   |             | *              |                |                |
| 194. <i>Ixoreus n. meruloides</i> .....      |                   | *                |                 |                    |                   |             | *              |                |                |
| 195. <i>Sialia m. occidentalis</i> .....     |                   | *                |                 |                    | *                 |             |                |                |                |

These one hundred and ninety-five species and subspecies have been reported from the several islands as shown in the following table. The first column of figures gives the total number of forms accredited to each island; the second, the number of these which have been reported on doubtful grounds.

|                      | Total number of forms | Doubtful |
|----------------------|-----------------------|----------|
| Los Coronados .....  | 58                    | 1        |
| San Clemente .....   | 114                   | 2        |
| San Nicolas .....    | 51                    | 1        |
| Santa Catalina ..... | 93                    | 4        |
| Santa Barbara .....  | 48                    | 5        |
| Anacapa .....        | 39                    | 1        |
| Santa Cruz .....     | 141                   | 2        |
| Santa Rosa .....     | 21                    |          |
| San Miguel .....     | 35                    |          |

Santa Cruz Island has more birds reported from it than the other islands, both because its character is the most diversified, and because it has been rather thoroughly worked for a number of weeks at a time during all parts of the year, by several competent ornithologists. The latter reason is also the main one for San Clemente showing up so well numerically. This island is comparatively barren, with few trees, and there are not a great number of resident species, but it

seems to be in a good line of migration. Santa Catalina is much more diversified than the last, in fact it is next to Santa Cruz in this respect, and if much systematic work were done upon it, I believe that it would surpass San Clemente in the number of species in its avifauna. It is the most often visited of the islands, and many ornithologists of note have collected there, but usually their visits have been limited to several days. The Coronados fall fourth in this list, rather surprising for such small barren spots, but then they are many times more often visited than any other of the smaller islands. It is to be expected that not so many forms occur on San Nicolas, as it is rather barren and well out to sea. The avifauna of Santa Barbara Island is of quite respectable size. It has a good list of water birds, and although there has not been a great deal of work done there for any period of time, it seems to be a favorite resting place for the few small land migrants that pass that way. There has been less systematic work done on Anacapa, but it is much more often visited for periods of several days at a time. The number of species recorded from both San Miguel and Santa Rosa are very small for the size of the islands, but neither is especially attractive to bird life. Then, too, there has not been much work done on San Miguel and less on Santa Rosa, where it is difficult to get a permit to stay on the island.

#### TABULATION OF SPECIES BY MANNER OF OCCURRENCE

In preparing a table of seasonal occurrence of the different birds, I have been obliged to use my own judgment to a certain extent. That is, when there are but a couple of records for a species during the winter, it is hard to tell for a surety whether it occurs regularly during that time of year, or should be classed as a casual visitant. In such case I have had to consider the conditions under which the record was made, the abundance of the species upon the mainland during the same season, and several other factors. It will therefore be seen that the tables are only approximately correct, but as nearly so as it is possible for me to make them under the circumstances.

#### RESIDENTS

- |  |   |
|--|---|
| 1. <i>Lunda cirrhata</i>                       | 19. <i>Accipiter cooperi</i>                      |
| 2. <i>Ptychoramphus aleuticus</i>              | 20. <i>Buteo borealis calurus</i>                 |
| 3. <i>Brachyramphus hypoleucus</i>             | 21. <i>Haliaeetus leucocephalus leucocephalus</i> |
| 4. <i>Cepphus columba</i>                      | 22. <i>Falco peregrinus anatum</i>                |
| 5. <i>Uria troille californica</i>             | 23. <i>Falco sparverius phalaena</i>              |
| 6. <i>Larus occidentalis</i>                   | 24. <i>Pandion haliaeetus carolinensis</i>        |
| 7. <i>Oceanodroma melania</i>                  | 25. <i>Aluco pratincola</i>                       |
| 8. <i>Oceanodroma homochroa</i>                | 26. <i>Asio wilsonianus</i>                       |
| 9. <i>Oceanodroma socorroensis</i>             | 27. <i>Speotyto cunicularia hypogaea</i>          |
| 10. <i>Phalacrocorax auritus albociliatus</i>  | 28. <i>Colaptes cafer collaris</i>                |
| 11. <i>Phalacrocorax penicillatus</i>          | 29. <i>Calypte anna</i>                           |
| 12. <i>Phalacrocorax pelagicus resplendens</i> | 30. <i>Selasphorus alleni</i>                     |
| 13. <i>Pelecanus californicus</i>              | 31. <i>Sayornis nigricans</i>                     |
| 14. <i>Ardea herodias herodias</i>             | 32. <i>Otocoris alpestris insularis</i>           |
| 15. <i>Aegialitis nivosa</i>                   | 33. <i>Aphelocoma insularis</i>                   |
| 16. <i>Haematopus bachmani</i>                 | 34. <i>Corvus corax sinuatus</i>                  |
| 17. <i>Lophortyx californica vallicola</i>     | 35. <i>Sturnella neglecta</i>                     |
| 18. <i>Zenaidura macroura marginella</i>       |   |

- |  |  |
|--|--|
| 36. <i>Carpodacus mexicanus clementis</i>      | 47. <i>Lanius ludovicianus anthonyi</i>    |
| 37. <i>Loxia curvirostra stricklandi</i>       | 48. <i>Vireo huttoni huttoni</i>           |
| 38. <i>Astragalinus psaltria hesperophilus</i> | 49. <i>Vermivora celata sordida</i>        |
| 39. <i>Astragalinus lawrencei</i>              | 50. <i>Mimus polyglottos leucopterus</i>   |
| 40. <i>Spizella passerina arizonae</i>         | 51. <i>Salpinctes obsoletus obsoletus</i>  |
| 41. <i>Amphispiza belli</i>                    | 52. <i>Salpinctes obsoletus pulverius</i>  |
| 42. <i>Aimophila ruficeps ruficeps</i>         | 53. <i>Thryomanes bewicki charienturus</i> |
| 43. <i>Melospiza melodia graminea</i>          | 54. <i>Thryomanes leucophrys</i>           |
| 44. <i>Melospiza melodia clementae</i>         | 55. <i>Sitta canadensis</i>                |
| 45. <i>Pipilo maculatus clementae</i>          | 56. <i>Psaltriparus minimus minimus</i>    |
| 46. <i>Pipilo maculatus megalonyx</i>          |  |

The above is a list of species that are supposed to be found on the islands throughout the year, and to breed there. *Vermivora c. sordida*, however, is only partly resident, as a great many individuals migrate to the adjacent mainland for the winter. *O. socorroensis* is probably resident, but this is not absolutely certain. In addition to the above, there is the following list of birds which, although breeding, some to the north, and some to the south of the region treated, and common only when not engaged in the rearing of young in other localities, may nevertheless be encountered upon the islands during all parts of the year.

- |                             |                                  |
|-----------------------------|----------------------------------|
| 1. <i>Larus heermanni</i>   | 5. <i>Puffinus griseus</i>       |
| 2. <i>Sterna maxima</i>     | 6. <i>Heteractitis incanus</i>   |
| 3. <i>Diomedea nigripes</i> | 7. <i>Actitis macularia</i>      |
| 4. <i>Diomedea albatrus</i> | 8. <i>Arenaria melanocephala</i> |

#### WINTER VISITANTS

- |   |  |
|---|--|
| 1. <i>Aechmophorus occidentalis</i>         | 26. <i>Anser albifrons gambeli</i>             |
| 2. <i>Colymbus auritus</i>                  | 27. <i>Calidris leucophaea</i>                 |
| 3. <i>Colymbus nigricollis californicus</i> | 28. <i>Oxyechus vociferus</i>                  |
| 4. <i>Podilymbus podiceps</i>               | 29. <i>Podasocys montanus</i>                  |
| 5. <i>Gavia immer</i>                       | 30. <i>Accipiter velox</i>                     |
| 6. <i>Gavia pacifica</i>                    | 31. <i>Falco columbarius columbarius</i>       |
| 7. <i>Gavia stellata</i>                    | 32. <i>Ceryle alcyon</i>                       |
| 8. <i>Cerorhinca monocerata</i>             | 33. <i>Sphyrapicus ruber ruber</i>             |
| 9. <i>Synthliboramphus antiquus</i>         | 34. <i>Sayornis sayus</i>                      |
| 10. <i>Rissa tridactyla pollicaris</i>      | 35. <i>Passerculus sandwichensis alaudinus</i> |
| 11. <i>Larus glaucescens</i>                | 36. <i>Zonotrichia leucophrys gambeli</i>      |
| 12. <i>Larus argentatus</i>                 | 37. <i>Zonotrichia coronata</i>                |
| 13. <i>Larus californicus</i>               | 38. <i>Junco hyemalis thurberi</i>             |
| 14. <i>Larus delawarensis</i>               | 39. <i>Passerella iliaca unalascensis</i>      |
| 15. <i>Larus brachyrhynchus</i>             | 40. <i>Passerella iliaca megarhyncha</i>       |
| 16. <i>Sterna forsteri</i>                  | 41. <i>Passerella iliaca stephensi</i>         |
| 17. <i>Fulmarus glacialis glupischa</i>     | 42. <i>Passerella iliaca insularis</i>         |
| 18. <i>Puffinus creatopus</i>               | 43. <i>Bombycilla cedrorum</i>                 |
| 19. <i>Puffinus opisthomelas</i>            | 44. <i>Dendroica coronata</i>                  |
| 20. <i>Oceanodroma kaedingi</i>             | 45. <i>Dendroica auduboni auduboni</i>         |
| 21. <i>Mergus serrator</i>                  | 46. <i>Anthus rubescens</i>                    |
| 22. <i>Oidemia americana</i>                | 47. <i>Regulus calendula calendula</i>         |
| 23. <i>Oidemia deglandi</i>                 | 48. <i>Hylocichla guttata guttata</i>          |
| 24. <i>Oidemia perspicillata</i>            | 49. <i>Planesticus migratorius propinquus</i>  |
| 25. <i>Chen hyperboreus hyperboreus</i>     | 50. <i>Ixoreus naevius meruloides</i>          |



With the above I have included all those birds which come to us after breeding, even though some of them reach us in the middle of the summer months.

## SUMMER VISITANTS

- |   |   |
|---|---|
| 1. <i>Chordeiles acutipennis texensis</i> | 4. <i>Empidonax difficilis difficilis</i> |
| 2. <i>Aeronautes melanoleucus</i>         | 5. <i>Icterus cucullatus nelsoni</i>      |
| 3. <i>Calypte costae</i>                  | 6. <i>Hirundo erythrogastra</i>           |

Of this list, I deem it extremely improbable that *Chordeiles a. texensis* is a regular breeder in the region; a few individuals of *Aeronautes melanoleucus* may possibly spend the winter.

## TRANSIENTS

- |   |   |
|---|---|
| 1. <i>Xema sabini</i>                           | 13. <i>Phalaenoptilus nuttalli californicus</i> |
| 2. <i>Phalaropus fulicarius</i>                 | 14. <i>Chaetura vauxi</i>                       |
| 3. <i>Lobipes lobatus</i>                       | 15. <i>Tyrannus verticalis</i>                  |
| 4. <i>Pisobia minutilla</i>                     | 16. <i>Tyrannus vociferans</i>                  |
| 5. <i>Ereunetes mauri</i>                       | 17. <i>Myiochanes richardsoni richardsoni</i>   |
| 6. <i>Helodromas solitarius cinnamomeus</i>     | 18. <i>Icterus bullocki</i>                     |
| 7. <i>Catoptrophorus semipalmatus inornatus</i> | 19. <i>Zamelodia melanocephala</i>              |
| 8. <i>Numenius hudsonicus</i>                   | 20. <i>Passerina amoena</i>                     |
| 9. <i>Squatarola squatarola</i>                 | 21. <i>Piranga ludoviciana</i>                  |
| 10. <i>Aegialitis semipalmata</i>               | 22. <i>Dendroica townsendi</i>                  |
| 11. <i>Aphriza virgata</i>                      | 23. <i>Wilsonia pusilla pileolata</i>           |
| 12. <i>Arenaria interpres morinella</i>         | 24. <i>Hylocichla ustulata ustulata</i>         |
|   | 25. <i>Sialia mexicana occidentalis</i>         |

Under "Transient" I have put all migrants which one might judge should occur with any degree of regularity, though with some of them it is a question whether it would not be better to label them "Casual".

## CASUAL VISITANTS

- |  |  |
|--|--|
| 1. <i>Brachyramphus craveri</i>              | 23. <i>Euphagus carolinus</i>                |
| 2. <i>Fregata aquila</i>                     | 24. <i>Euphagus cyanocephalus</i>            |
| 3. <i>Dafila acuta</i>                       | 25. <i>Carpodacus purpureus californicus</i> |
| 4. <i>Butorides virescens anthonyi</i>       | 26. <i>Passer domesticus</i>                 |
| 5. <i>Nycticorax nycticorax naevius</i>      | 27. <i>Spinus pinus</i>                      |
| 6. <i>Porzana carolina</i>                   | 28. <i>Zonotrichia querula</i>               |
| 7. <i>Fulica americana</i>                   | 29. <i>Spizella atrogularis</i>              |
| 8. <i>Recurvirostra americana</i>            | 30. <i>Pipilo maculatus oregonus</i>         |
| 9. <i>Himantopus mexicanus</i>               | 31. <i>Guiraca caerulea lazula</i>           |
| 10. <i>Macrorhamphus griseus scolopaceus</i> | 32. <i>Piranga rubra cooperi</i>             |
| 11. <i>Pisobia bairdi</i>                    | 33. <i>Tachycineta thalassina lepida</i>     |
| 12. <i>Totanus melanoleucus</i>              | 34. <i>Vermivora celata celata</i>           |
| 13. <i>Haematopus frazari</i>                | 35. <i>Dendroica magnolia</i>                |
| 14. <i>Circus hudsonius</i>                  | 36. <i>Dendroica nigrescens</i>              |
| 15. <i>Falco mexicanus</i>                   | 37. <i>Dendroica occidentalis</i>            |
| 16. <i>Asio flammeus</i>                     | 38. <i>Geothlypis trichas arizela</i>        |
| 17. <i>Asyndesmus lewisi</i>                 | 39. <i>Catherpes mexicanus conspersus</i>    |
| 18. <i>Myiarchus cinerascens cinerascens</i> | 40. <i>Catherpes mexicanus punctulatus</i>   |
| 19. <i>Empidonax trailli trailli</i>         | 41. <i>Troglodytes aedon parkmani</i>        |
| 20. <i>Empidonax hammondi</i>                | 42. <i>Nannus hiemalis pacificus</i>         |
| 21. <i>Molothrus ater obscurus</i>           | 43. <i>Telmatodytes palustris paludicola</i> |
| 22. <i>Xanthocephalus xanthocephalus</i>     | 44. <i>Regulus satrapa olivaceus</i>         |

These are birds which are rare even on the mainland, or which at the present time cannot be classed as regular migrants to the islands, although in the future some of them may be found to pass through the region in considerable numbers.

There are three birds which I am unable to place. *Buteo swainsoni* may be either a rare summer visitant of one or two of the islands, or else a migrant from the coast. *Bubo virginianus pacificus* may be a rare resident of Santa Cruz, or else, what seems more likely, an accidental visitant. The latter term may also apply to *Chondestes grammacus strigatus*, although it is by no means improbable that this sparrow is a resident in small numbers.

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**SECOND TEN YEAR INDEX  
TO  
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**BY**

**J. R. PEMBERTON**



**HOLLYWOOD, CALIFORNIA**

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HARRY S. SWARTH  
at the  
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#### NOTE

PACIFIC COAST AVIFAUNA No. 13 is the thirteenth in a series of publications issued by the Cooper Ornithological Club for the accommodation of papers whose length prohibits their appearance in THE CONDOR.

The publications of the Cooper Ornithological Club consists of two series—THE CONDOR, which is the bi-monthly official organ, and the PACIFIC COAST AVIFAUNA.

For information as to either of the above series, address the Club Business Manager, W. Lee Chambers, Eagle Rock, Los Angeles County, California.



## INTRODUCTION

THE WRITER has been occupied nearly a year and a half in the preparation of this the second ten year index to *The Condor*. Following upon consultation with the editors of the publications of the Cooper Ornithological Club, one hundred circular letters asking for suggestions were sent to such representative Club members as were thought would be most interested in the effectiveness of such an index. From the answers received the present plan was evolved and adopted.

The procedure followed consisted in making up a card index, allowing one card for each species, each locality, and each author. The annual indexes to *The Condor* were not used except in checking for errors and omissions. This card index was completed almost simultaneously with the appearance of the last issue of *The Condor* for 1918. The whole was then typewritten, checked item by item, and submitted to the editors.

### PLAN OF THE INDEX

1. *Authors.* Titles of papers and articles reviewed are entered in chronological order, a review being indicated by the abbreviation '(rev.)'. Where the indexed author is the reviewer the reviewed author's name is placed before the title. Where the indexed author himself is reviewed we read 'rev. of his'. The titles of all articles reviewed are inserted under both the author and the reviewer.

Cards were sent to all authors the full names of whom were not at hand, but responses failed to come from many. Dr. T. S. Palmer furnished full names for some of these.

2. *Localities.* Authors' names are listed in alphabetical order under each locality, whether the article deals with the avifauna of the region exhaustively or simply records some one bird.

3. *Subjects.* Names of authors are also listed under special subjects such as 'Anatomy', 'Taxonomy', but only where the article deals exclusively with the subject.

4. *Species.* Species and subspecies are listed each under its respective genus. Under each species are listed all localities from which that species is recorded, and also, following a dash (—), are given subjects such as 'nesting' and 'food', to which special reference has been made. Usually references under any of the latter headings may also be found under the locality heading. Thus at a glance one may find, for example, to what locality a certain 'nesting' reference pertains.

5. *Synonyms.* In parenthesis following the scientific name of each species is the vernacular name, and following this are all other names by which that species has been called anywhere in the ten volumes of *The Condor* here covered. Each of these names is also listed separately in its correct alphabetical place in the Index, and cross references show under what scientific name all the information is collected. In this way all references are brought together under one name. The latest American Ornithologists' Union Check-List has been followed for scientific names excepting for geographic races recognized subsequent to its publication, and for these the current usage in *The Condor* has been followed—anticipating in some cases the acceptance of these races by the American Ornithologists' Union Committee on Nomenclature.

6. *Key letters.* Where any species is referred to in *The Condor* by any other name than the scientific name used herein the reference in the Index is followed by a key letter, and by examining the names in the parenthesis which follows the scientific name it may be found what that name is. Thus, in the index, the Cedar Waxwing appears as follows:

*Bombycilla cedrorum* (<sup>a</sup>Cedar Waxwing, <sup>b</sup>Ampelis, <sup>c</sup>Cedar Bird)

The first reference is Ark., XVII, 51—meaning that there the name used is *Bombycilla cedrorum*; the first reference for California is XII, 48<sup>a</sup>—and indicates that here *Bombycilla cedrorum* has been omitted, the name Cedar Waxwing appearing alone. The first reference for Morelos is XI, 65<sup>b</sup>—indicating that the bird is mentioned under the name *Ampelis cedrorum*. The reference for 'food' is XIII, 107<sup>c</sup>—and means that here the species is called Cedar-bird only. For the expert these key letters are perhaps unnecessary; but for the average worker they are needed for the reason that all the synonyms for each and every species cannot be kept in mind. Hence a novice in looking up references to the species above mentioned would perhaps overlook '*Ampelis*' in his search for either '*Bombycilla*' or 'Cedar Waxwing' were not the key letters used.

#### ACKNOWLEDGMENTS

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J. R. PEMBERTON.

*San Francisco, California, January 11, 1919*

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## ABBREVIATIONS

|           |                  |         |                            |
|-----------|------------------|---------|----------------------------|
| alb.      | albino           | Mass.   | Massachusetts              |
| anat.     | anatomy          | meas.   | measurements               |
| Ariz.     | Arizona          | migr.   | migration                  |
| Ark.      | Arkansas         | Nev.    | Nevada                     |
| Aust.     | Australia        | ncmen.  | nomenclature               |
| B. C.     | British Columbia | N. Dak. | North Dakota               |
| Calif.    | California       | N. Mex. | New Mexico                 |
| Co.       | County           | Okla.   | Oklahoma                   |
| Colo.     | Colorado         | Ore.    | Oregon                     |
| corr.     | correction       | parst.  | parasitism                 |
| descr.    | description      | photo.  | photograph                 |
| destr.    | destruction      | plum.   | plumage                    |
| discv.    | discovery        | prot.   | protection or conservation |
| distb.    | distribution     | rev.    | review                     |
| fos.      | fossil           | S. Dak. | South Dakota               |
| hbt.      | habits           | syn.    | synonym                    |
| Kan.      | Kansas           | tax.    | taxonomy                   |
| L. Calif. | Lower California | Tex.    | Texas                      |
| l. hist.  | life history     | Wash.   | Washington                 |

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- Beal, Foster Ellenborough Lascelles: XVIII, 234. Born, 1839. Died, Branchville, Maryland, October 1, 1916, age 77.
- Belding, Lyman: XX, 47. Born, West Farms, Massachusetts, June 12, 1829. Died, Stockton, California, November 22, 1917, age 88.
- Betts, Norman DeWitt: XIX, 144. Born, 1880. Died, May 21, 1917, age 37.
- Brown, Herbert: XV, 186. Born, Winchester, Virginia, March 6, 1848. Died, Tucson, Arizona, May 12, 1913, age 65.

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- Cummings, Claude: XI, 35. Died, Pinole, California, January, 1909.
- Davis, Evan: XIX, 188. Died, November, 1917.
- Ferry, John Farwell: XII, 81. Born, October 12, 1877. Died, Chicago, Illinois, February 11, 1910, age 33.
- Frost, Albert H.: XIV, 200. Died, New York City, January 27, 1912.
- Jay, Alphonse: XVIII, 172. Died, Los Angeles, California, May 25, 1916.
- Kaeding, Henry Barroilhet: XV, 191. Born, San Francisco, California, 1877. Died, Los Angeles, California, June 12, 1913, age 36.
- Marsden, Henry Warden: XVI, 202. Born, Boston, Massachusetts, 1856. Died, Pacific Grove, California, February 26, 1914, age 58.
- Mearns, Edgar Alexander: XVIII, 234. Died, Washington, D. C., November 1, 1916, age 61.
- Newberry, F. E.: XVII, 132. Died, San Francisco, California, March 16, 1915.
- Pomeroy, Harry K.: XVII, 132. Born, Lockport, New York, April 3, 1865. Died, Kalamazoo, Michigan, January 27, 1915, age 50.
- Snyder, Gaylord K.: XVII, 236. Died, Los Angeles, California, August 28, 1915.
- Taylor, Henry Reed: XX, 47. Died, September 23, 1917.
- Oceanodroma furcata* (\*Fork-tailed Petrel), Alaska, XIV, 234<sup>a</sup>; XVI, 75, 90, 91; XVII, 39; B. C., XX, 180; Calif., XVII, 204; XVIII, 205; XIX, 141.—Nest, XVI, 75; XVII, 39; XVIII, 205; miscl., XIII, 177.
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- leucorhoa kaedingi* (Kaeding Petrel), Calif., XX, 211.—Distb., XX, 46; tax., XX, 46.
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- gambeli abbreviatus (Short-tailed Mountain Chickadee, <sup>a</sup>Mountain Chickadee, <sup>b</sup>gambeli, <sup>c</sup>Parus montanus), Calif., XII, 149<sup>b</sup>; XIII, 205<sup>b</sup>; XIV, 166<sup>a</sup>, 174<sup>a</sup>, 176<sup>a</sup>, 178<sup>a</sup>, 182<sup>a</sup>; XV, 85<sup>b</sup>, 198<sup>a</sup>, 200<sup>a</sup>, 203<sup>b</sup>; XVI, 64<sup>b</sup>, 153<sup>b</sup>, 208<sup>a</sup>; XVII, 198<sup>b</sup>; XX, 13<sup>b</sup>, 16<sup>a</sup>, 71<sup>b</sup>, 76<sup>b</sup>; Ore., XI, 138<sup>b</sup>.—Nest, XIV, 166<sup>a</sup>, 174<sup>a</sup>; XV, 85<sup>b</sup>, 198<sup>a</sup>; XVI, 208<sup>a</sup>; XX, 71<sup>b</sup>, 72<sup>a</sup>, 73<sup>a</sup>, 76<sup>a</sup>; miscel., XX, 60<sup>a</sup>.
- gambeli baileyae (Bailey Chickadee), Calif., XVI, 193, 208, 219; XVIII, 29.—Nest, XVI, 208.
- gambeli gambeli (<sup>a</sup>Mountain Chickadee), Ariz., XIX, 103<sup>a</sup>; XX, 21; Colo., XI, 17; XII, 39; XIV, 103; XVII, 60<sup>a</sup>, 95; XX, 199<sup>a</sup>; Idaho, XIV, 194; XVII, 129; XIX, 41; Mon., XII, 200-202; XIV, 31; XVI, 143; XVIII, 163; N. Mex., XIV, 113<sup>a</sup>; Ore., XIX, 133<sup>a</sup>, 140; Tex., XIX, 164.—Nest, XII, 200, 202; photo., XII, 201-202; miscel., XX, 97<sup>a</sup>.

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- Fork-tailed, see Oceanodroma furcata.
- Kaeding, see Oceanodroma leucorhoa kaedingi.
- Leach, see Oceanodroma leucorhoa leucorhoa.
- Least, see Halocyptena microsoma.
- Socorro, see Oceanodroma socorroensis.
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*maculatus arcticus* (Arctic Towhee), Colo., XI, 120; Mon., XIV, 29; XVI, 139; Ore., XIII, 68; S. Dak., XIII, 101.—Meas., XV, 175; miscl., XV, 173.

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*maculatus falcifer* (\*San Francisco Towhee), Calif., XI, 21; XIII, 74; XVI, 36; XVII, 80, 83<sup>a</sup>, 85<sup>a</sup>, 201; XIX, 61.—Descr., XV, 171; distb. with map, XV, 168, 169; meas., XV, 175; photo., XVII, 83<sup>a</sup>.

*maculatus falcinellus* (Sacramento Towhee, \*Spurred Towhee, <sup>b</sup>*megalonyx*), Calif., XIII, 120<sup>b</sup>, 161<sup>b</sup>, 205<sup>b</sup>; XVI, 59<sup>b</sup>, 65-66<sup>a</sup>; XX, 15.—Descr., XV, 172; distb. with map, XV, 168-169; meas., XV, 175; nest, XVI, 59<sup>b</sup>, 65<sup>a</sup>, 66<sup>a</sup>; miscl., XX, 87.

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*maculatus megalonyx* (\*Spurred Towhee, <sup>b</sup>*San Diego Towhee*), Calif., XII, 171<sup>a</sup>; XIV, 39; XV, 154<sup>b</sup>, 157<sup>a</sup>; XVI, 98, 210; XVIII, 201; XIX, 169.—Descr., XV, 170; distb. with map, XV, 168-169; XVI, 98; hbt., XII, 166; meas., XV, 175; tax., XIII, 170; XV, 170.

*maculatus montanus* (Mountain Towhee, \*Spurred Towhee), Calif., XV, 188; XX, 87; Colo., XI, 16; XII, 37; XIV, 100; XVII, 150; Idaho, XVII, 127; N. Mex., XIV, 114<sup>a</sup>; Ore., XIX, 139; Tex., XIX, 164.—Meas., XX, 88; tax., XIII, 170.

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*erythromelas* (\*Scarlet Tanager), Ark., XVII, 50; Kan., XI, 155, 156, 161.—Miscl., XIX, 52<sup>a</sup>.

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*ludoviciana* (\*Western Tanager, <sup>b</sup>*Louisiana Tanager*), Ariz., XX, 21, 168; Calif., XI, 70, 172; XII, 18; XIII, 50, 109<sup>a</sup>, 182, 205; XIV, 195; XV, 84, 115, 157<sup>a</sup>, 203; XVI, 36, 57, 210; XVII, 165, 192<sup>a</sup>, 199; XVIII, 225, 232; XX, 14, 46, 196<sup>a</sup>; Colo., XI, 17, 121; XII, 37; XIV, 101; XVII, 150; Idaho, XVI, 122; XVII, 128; XIX, 41; L. Calif., XII, 187; XV, 23; Mon., XII, 196<sup>b</sup>; XIV, 29, 219<sup>a</sup>; XVI, 140; XVII, 114; Ore., XIII, 68; XVIII, 78; XIX, 52<sup>a</sup>, 139; S. Dak., XIII, 100; Wash., XII, 167.—Discv., XVIII, 5<sup>b</sup>; food, XX, 14; migr., XX, 46; nest, XIII, 50; XV, 84; XVI, 57; XVII, 199; plum., XVII, 165; miscl., XI, 93<sup>b</sup>;

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- rubra cooperi* (Cooper Tanager), Ariz., XIV, 58; XX, 169; Morelos, XI, 59; N. Mex., XV, 232; Tex., XIX, 164.
- rubra rubra* (\*Summer Tanager), Ark., XVII, 50; Kan., XI, 155, 156, 161; Tex., XVIII, 215<sup>a</sup>; XX, 42.—Nest, XX, 42; miscl., XVIII, 83<sup>a</sup>.
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- maculata* (\*Pectoral Sandpiper), Alaska, XVI, 79; Calif., XII, 44; XIII, 35; XIV, 6<sup>a</sup>, 8; XVIII, 25, 39<sup>a</sup>; XX, 44; Colo., XI, 115; XIV, 127; Mon., XVI, 130; XVII, 114; Yukon, XI, 204.—Food, XIV, 6<sup>a</sup>; miscl., XIX, 79<sup>a</sup>.
- minutilla* (\*Least Sandpiper, <sup>b</sup>Limouites), Alaska, XVI, 79; B. C., XIV, 21; Calif., XI, 194; XII, 44; XIII, 108, 131, 135; XIV, 9, 35; XV, 156<sup>a</sup>; XVI, 145; Colo., XI, 115; XIV, 127; L. Calif., XV, 21; Mon., XVI, 130; N. Mex., XII, 162<sup>b</sup>; Ore., XVI, 114; S. Dak., XIII, 103; Tepic, XII, 76<sup>b</sup>; Yukon, XI, 204.—Distb., XII, 44<sup>b</sup>.
- ruficollis* (\*Limonites), Alaska, XI, 173<sup>a</sup>.—Distb., XII, 44<sup>a</sup>.
- Pitangus derbianus* (\*Derby Flycatcher, <sup>b</sup>sulphuratus derbianus), Honduras, XII, 58<sup>a</sup>; Salvador, XVI, 11<sup>b</sup>; Tepic, XII, 78; Tex., XI, 103; XII, 98.—Hbt., XVI, 11<sup>b</sup>; nest, XVI, 11<sup>b</sup>.
- Planesticus migratorius achrusterus* (Southern Robin, Kan., XVI, 92.
- migratorius caurinus* (\*Northwestern Robin, <sup>b</sup>migratorius), Alaska, XI, 107; XVI, 89, 91; XVII, 28; XVIII, 237; Alberta, XV, 131; B. C., XIV, 21; XX, 186<sup>b</sup>.
- migratorius migratorius* (\*American Robin), Alberta, XV, 131; Ark., XVII, 56; Colo., XIV, 148, 151, 152, 154; Kan., XI, 155, 156, 164; S. Dak., XIII, 94; Yukon, XI, 207.—Miscl., XVI, 25<sup>a</sup>; XIX, 62<sup>a</sup>.
- migratorius propinquus* (\*Western Robin, <sup>b</sup>Merula), Alaska, XVI, 89; Alberta, XV, 131; Ariz., XII, 110<sup>a</sup>; XX, 168; Calif., XI, 69<sup>a</sup>, 84<sup>a</sup>, 102<sup>b</sup>, 207; XII, 130; XIII, 82, 83, 121, 134, 137, 205; XIV, 12, 40, 174<sup>a</sup>, 178<sup>a</sup>; XV, 19, 85, 115, 199<sup>a</sup>, 200, 203; XVI, 40, 58, 69<sup>a</sup>, 98; XVII, 85, 165, 201, 204, 235<sup>a</sup>; XVIII, 34<sup>a</sup>, 170, 226; XIX, 61, 185, 186; XX, 14; Colo., XI, 17<sup>b</sup>, 70<sup>a</sup>, 122<sup>a</sup>; XII, 39; XIV, 104, 154; XVII, 95, 151; Idaho, XIV, 191, 194; XVI, 122; XVII, 129; XIX, 43; Kan., XI, 208<sup>a</sup>; Mon., XII, 196<sup>a</sup>; XIV, 32, 216<sup>a</sup>, 218<sup>a</sup>; XVI, 143; XVII, 110; XVIII, 163; Nev., XII, 85, 88; Ore., XI, 68<sup>a</sup>; XIII, 69;

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- Podargus humeralis* (Frogmouth), Aust., XIII, 142.
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*californica* (\*California Gnatcatcher, <sup>b</sup>Black-tailed Gnatcatcher), Calif., XI, 81; XVI, 98; XIX, 156<sup>b</sup>; L. Calif., XV, 24.

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*griseus* (\*Sooty Shearwater, <sup>b</sup>Dark-bodied Shearwater, <sup>c</sup>fuliginosus), Alaska, XVI, 75; B. C., XX, 185; Calif., XI, 193; XII, 170<sup>b</sup>, 174; XV, 89; XVIII, 30, 232; XIX, 57<sup>b</sup>; L. Calif., XIII, 152; XIV, 188<sup>a</sup>; XV, 20; Peru, XVI, 43<sup>a</sup>; Tepic, XII, 78-79<sup>a</sup>; Wash., XVII, 101; XX, 178<sup>c</sup>.—Miscl., XI, 73.

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Desert, see *Lophortyx gambeli*.

Douglas, see *Lophortyx douglasi*.

Fool, see *Cyrtonyx montezumae mearnsi*.

Gambel, see *Lophortyx gambeli*.

Mearns, see *Cyrtonyx montezumae mearnsi*.

Mountain, see *Oreortyx picta plumifera*.

Painted, see *Oreortyx picta picta*.

Plumed, see *Oreortyx picta plumifera*.

Scaled, see *Callipepla squamata squamata*.

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*Querquedula cyanoptera* (\*Cinnamon Teal), Calif., XII, 80; XIII, 130, 158; XIV, 34; XV, 154<sup>a</sup>, 156<sup>a</sup>, 185<sup>a</sup>, 217; XVI, 222, 227, 230, 231, 234<sup>a</sup>, 235<sup>a</sup>, 236<sup>a</sup>; XVII, 166; XVIII, 167, 178, 230; XIX, 157<sup>a</sup>, 158<sup>a</sup>; Chili, XVI, 188<sup>a</sup>; Colo., XI, 13, 111, 112; XII, 29; XIII, 122<sup>a</sup>, 128; Idaho, XVII, 122; L. Calif., XV, 21; Mon., XIV, 23; Nev., XII, 87; Ore., XIII, 65; XIX, 134; Peru, XVI, 43<sup>a</sup>; Tex., XX, 38; Wash., XVI, 251, 253<sup>a</sup>.—Destr., XVI, 236<sup>a</sup>; hybrid, XVII, 115; meas., XVII, 117; nest, XI, 112; XII, 87; XIII, 128; XVI, 222, 227, 230, 231; XVIII, 167, 178; photo., XI, 112; XIII, 126, 127; XV, 217; XVII, 116; miscl., XI, 199<sup>a</sup>; XIX, 167<sup>a</sup>; XX, 123<sup>a</sup>.

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## R

Rail, Belding, see *Rallus beldingi*.

Black, see *Creciscus jamaicensis*.

California Black, see *Creciscus coturniculus*.

California Clapper, see *Rallus obsoletus*.

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Clapper, see *Rallus levipes*.

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## RAIL

- Louisiana Clapper, see *Rallus crepitans saturatus*.  
 Mexican King, see *Rallus tenuirostris*.  
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- Rallus beldingi* (Belding Rail), L. Calif., XI, 11; XX, 58.—Nest, XI, 11; misc., XX, 60.  
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XVIII, 81; N. Dak., XVII, 223<sup>a</sup>.—Food, XIII, 107<sup>a</sup>; miscl., XIX, 171<sup>a</sup>.

*melanocephala capitalis* (<sup>a</sup>Pacific Black-headed Grosbeak, <sup>b</sup>*melanocephala*), Ariz., XVII, 189; Calif., XI, 21, 172<sup>a</sup>; XIII, 161<sup>b</sup>; XIV, 39<sup>b</sup>, 106<sup>a</sup>; XV, 92<sup>b</sup>, 119<sup>b</sup>, 157<sup>a</sup>, 203; XVI, 36, 63, 69<sup>a</sup>; XVII, 80, 189, 201; XVIII, 201<sup>a</sup>; XIX, 61, 158<sup>a</sup>; XX, 14<sup>b</sup>, 19<sup>b</sup>; Nev., XII, 86; Ore., XIII, 68; XVIII, 78<sup>b</sup>; XIX, 52<sup>a</sup>, 98<sup>a</sup>.—Discv., XVIII, 7<sup>a</sup>; eggs, XII, 21; food, XVIII, 201<sup>a</sup>; migr., XX, 19<sup>b</sup>; nest, XVI, 63, 69<sup>a</sup>; miscl., XIII, 71<sup>a</sup>; XIV, 75<sup>a</sup>, 178<sup>a</sup>; XV, 94<sup>b</sup>; XVIII, 190<sup>a</sup>, 233<sup>a</sup>.

*melanocephala melanocephala* (<sup>a</sup>Black-headed Grosbeak), Colo., XI, 16, 70<sup>a</sup>, 120; XII, 37; XIV, 100; XVII, 150; Idaho, XVII, 128; XIX, 41; Mon., XIV, 29; XVI, 139; N. Mex., XIV, 116<sup>a</sup>; S. Dak., XIII, 104; Tex., XIII, 45<sup>a</sup>.—Eggs, XII, 21; photo., XVI, 143.

*Zenaida zenaida* (*Zenaida Dove*), Cuba, XVIII, 147.—Nest, XVIII, 147.

*Zenaidura macroura marginella* (<sup>a</sup>Western Mourning Dove, <sup>b</sup>Mourning Dove, <sup>c</sup>*carolinensis*, <sup>d</sup>*macroura*), Alaska, XVI, 81; XIX, 22<sup>a</sup>; Ariz., XII, 110<sup>b</sup>; XIII, 51<sup>b</sup>; XIV, 53, 58<sup>a</sup>, 59<sup>a</sup>; XVII, 87; XVIII, 156<sup>b</sup>, 210; XX, 169<sup>c</sup>; Ark., XVII, 42; Calif., XI, 21<sup>c</sup>, 84<sup>c</sup>, 170<sup>c</sup>, 185<sup>c</sup>; XII, 130<sup>c</sup>; XIII, 73<sup>c</sup>, 131<sup>c</sup>, 135<sup>c</sup>, 180<sup>c</sup>, 205<sup>c</sup>; XIV, 14<sup>c</sup>, 35<sup>c</sup>, 107<sup>a</sup>; XV, 91, 156<sup>a</sup>; XVI, 30, 55; XVII, 131<sup>a</sup>, 193; XIX, 59; Colo., XI, 14<sup>c</sup>, 116<sup>c</sup>; XII, 25<sup>c</sup>, 30<sup>c</sup>; XIV, 92<sup>c</sup>; XVII, 92, 149<sup>c</sup>; Idaho, XVII, 123; XIX, 32<sup>c</sup>; Kan., XI, 155<sup>c</sup>, 157<sup>c</sup>; L. Calif., XIII, 152<sup>c</sup>; XV, 22; Mon., XIV, 25; XV, 94<sup>a</sup>; XVI, 131; Morelos, XI, 63<sup>c</sup>; Nev., XII, 88<sup>c</sup>, 89<sup>b</sup>; N. Dak., XVII, 223<sup>b</sup>; XX, 176<sup>b</sup>; Ore., XIII, 66<sup>c</sup>; XIX, 135; S. Dak., XIII, 91<sup>b</sup>, 97<sup>b</sup>; Tepic, XII, 78<sup>c</sup>, 79<sup>b</sup>; Tex., XII, 95<sup>c</sup>; XIII, 44<sup>b</sup>, 46<sup>b</sup>; XV, 182<sup>a</sup>; XVIII, 152<sup>b</sup>, 154<sup>b</sup>, 183<sup>b</sup>, 184-185<sup>b</sup>, 188-189<sup>b</sup>, 218<sup>b</sup>; XX, 39; Wash., XIII, 184<sup>c</sup>; XV, 183<sup>c</sup>; XVI, 251, 253<sup>a</sup>, 254<sup>a</sup>.—Destr., XVI, 55; food, XII, 137<sup>a</sup>; XIII, 204<sup>c</sup>; hbt., XI, 84<sup>c</sup>; XX, 107<sup>b</sup>; nest, XI, 92<sup>a</sup>; XII, 30<sup>c</sup>, 130<sup>c</sup>; XIII, 51<sup>b</sup>, 184<sup>c</sup>; XIV, 73<sup>a</sup>, 153<sup>a</sup>; XV, 91; XVII, 87, 131<sup>a</sup>; XIX, 32<sup>c</sup>; XX, 39; photo., XIII, 184-185<sup>c</sup>; XV, 42<sup>a</sup>; prot., XI, 174<sup>a</sup>; XIV, 112<sup>a</sup>, 229-230<sup>a</sup>; miscl., XI, 47<sup>a</sup>; XIII, 70<sup>a</sup>, 71<sup>a</sup>;

## ZONOTRICHIA

XV, 30<sup>a</sup>, 34<sup>a</sup>; XVI, 152<sup>a</sup>; XVIII, 175<sup>a</sup>; XIX, 176<sup>a</sup>.

*Zonotrichia albicollis* (<sup>a</sup>White-throated Sparrow), Ark., XVII, 49; Calif., XVII, 101; XVIII, 29, 39<sup>a</sup>; XX, 61; Tex., XVIII, 153<sup>a</sup>, 154<sup>a</sup>; Wash., XV, 41; XVI, 183.

*coronata* (<sup>a</sup>Golden-crowned Sparrow), Alaska, XI, 107<sup>a</sup>; XII, 43; XIII, 211; XVI, 87; XVIII, 4<sup>a</sup>; XIX, 16; Calif., XIII, 74, 120, 133, 182, 210; XIV, 38, 106<sup>a</sup>; XVI, 35, 146; XVII, 81<sup>a</sup>, 85<sup>a</sup>, 101<sup>a</sup>, 201; XVIII, 30; XIX, 130; Colo., XI, 33; Ore., XVIII, 78; XIX, 138.—Hbt., XVII, 58<sup>a</sup>; photo., XVII, 79<sup>a</sup>, 81<sup>a</sup>.

*leucophrys gambeli* (<sup>a</sup>Intermediate Sparrow, <sup>b</sup>Gambel, <sup>c</sup>Nuttall), Alberta, XV, 131; Ariz., XII, 110<sup>a</sup>; Calif., XI, 80; XIII, 110, 133, 136, 210; XIV, 38, 195; XVI, 35, 55, 146, 182; XVII, 80, 164, 188, 200; XVIII, 203<sup>b</sup>; XIX, 130<sup>a</sup>; XX, 15, 18; Colo., XI, 16, 120; XV, 111; XVII, 60<sup>b</sup>; Idaho, XVII, 127; L. Calif., XI, 137; XIII, 152; XIV, 190; XV, 23; Mon., XIV, 29; XVI, 138; Ore., XIX, 138; Wash., XVI, 255; Yukon, XI, 206.—Destr., XVI, 55; miscl., XII, 177<sup>b</sup>; XVI, 119<sup>b</sup>.

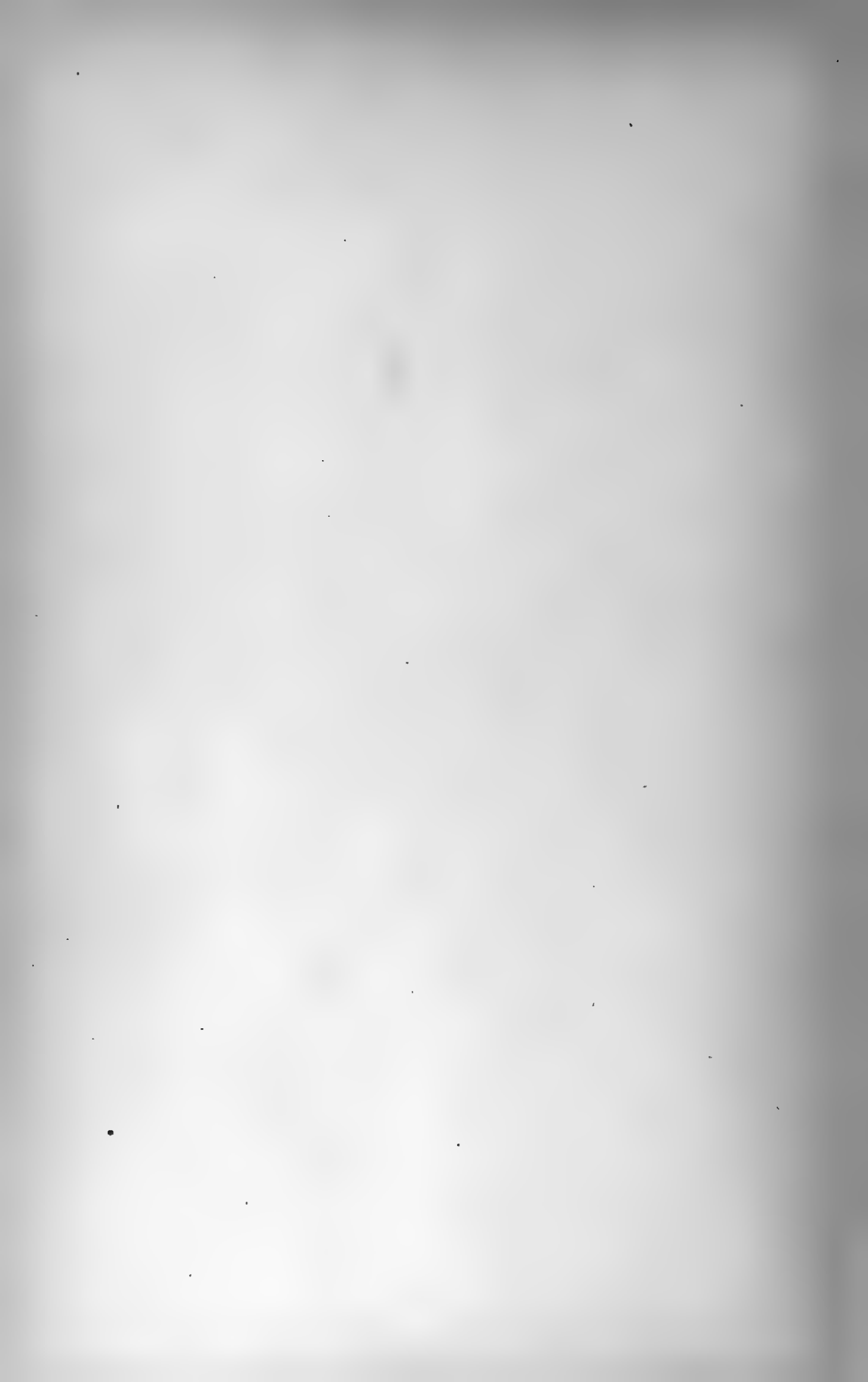
*leucophrys leucophrys* (<sup>a</sup>White-crowned Sparrow), Alberta, XV, 131; Ark., XVII, 49; Calif., XII, 108; XIV, 144, 146<sup>a</sup>, 147<sup>a</sup>; XV, 83, 137<sup>a</sup>, 198<sup>a</sup>, 203; XVI, 67; XVII, 59, 101<sup>a</sup>; XVIII, 28; XX, 15, 61<sup>a</sup>; Colo., XI, 16, 120; XII, 36; XIV, 99; XV, 111; XVII, 60<sup>a</sup>, 94; Idaho, XIX, 37<sup>a</sup>, 39; Mon., XIV, 29; XVI, 138; Nev., XII, 86; Ore., XIX, 9<sup>a</sup>; Tex., XVIII, 154<sup>a</sup>.—Nest, XIV, 99, 144, 146<sup>a</sup>, 147<sup>a</sup>; XV, 83, 137<sup>a</sup>; XIX, 39; photo., XIV, 99; miscl., XIX, 25<sup>a</sup>.

*leucophrys nuttalli* (<sup>a</sup>Nuttall Sparrow), Calif., XI, 185; XIII, 74, 110; XVI, 29<sup>a</sup>, 35; XVII, 80, 101<sup>a</sup>, 188, 204; XIX, 60, 170; Ore., XVIII, 78; XIX, 9<sup>a</sup>, 46<sup>a</sup>, 101<sup>a</sup>; Wash., XV, 41.—Nest, XI, 185; XVI, 35; XVII, 78; XIX, 170.

*querula* (<sup>a</sup>Harris Sparrow), Ariz., XVI, 260; XX, 24; Ark., XVII, 49; B. C., XV, 71<sup>a</sup>; Calif., XVII, 80; Ore., XVI, 41; S. Dak., XIII, 95; Wash., XVI, 93.

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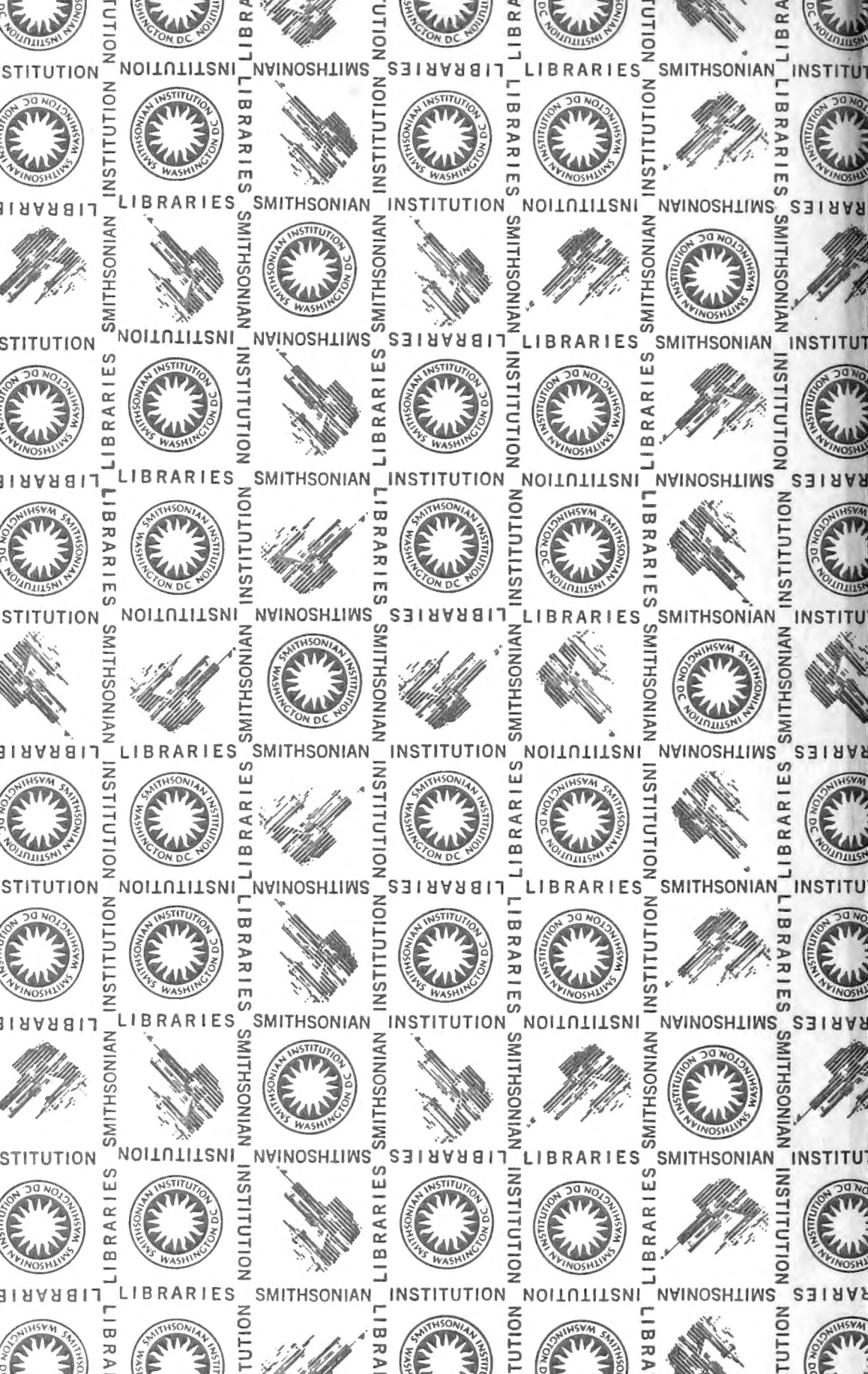


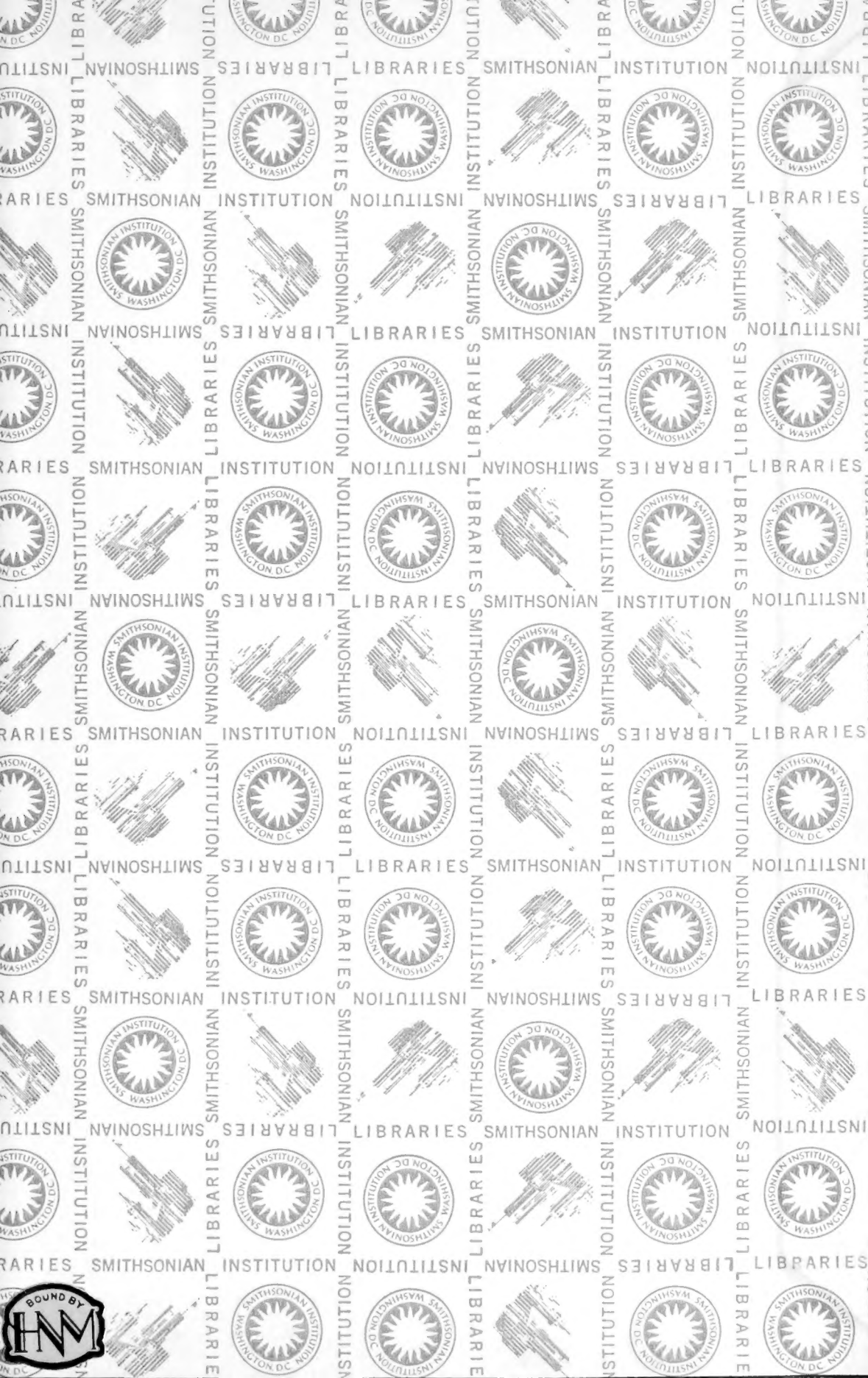












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