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Acorn-storing Woodpeckers

The acorn-storing woodpecker of California has become one of the most successful of birds because it uses its head. It uses its head not merely figuratively, in intelligent adaptation to the advantages and disadvantages of its environment, but also literally, in that its head is its chief physical means of making such adaptation.

These are the conclusions reached by Dr. William E. Ritter, emeritus professor of zoology at the University of California, after several years of critical study of the California Woodpecker in its native haunts, which will be described in the forthcoming issue of the "Quarterly Review of Biology."

Unlike almost all other American Woodpeckers, the California species has taken to a vegetable diet, consisting mostly of the acorns of two species of oaks. Examinations of the stomachs of numerous woodpecker specimens have shown, in most cases, little more than a trace of the insects that form the bulk of the food of most woodpeckers; and these are mostly insects caught in the open on the wing, instead of being laboriously drilled out of tree trunks.

The California Woodpecker does bore holes in trees, but only for the purpose of putting acorns into them. California trees and telephone poles are frequently peppered with acorn-filled holes, as though some one had been driving round-headed nails into them.

Dr. Ritter finds that the woodpecker makes good use of his head in four ways: in boring holes to fit his acorns according to their size, in selecting acorns of a size he can best handle, in choosing places where he can store his acorns with the best economy of labor, and in splitting some of his acorns in half, thereby making their handling easier. The bird prefers acorns from two species of oak, black oak and live oak, which are of a shape convenient for him to handle, but he passes up the acorns of the valley oak, which are too big. Yet he will take live-oak acorns to valley oaks to store them, because it is easier for him to drill storage holes in this tree, or to wedge his acorns into the ridges of its bark.

However, the California Woodpecker is no paragon of wisdom, Dr. Ritter has found. He is as big a fool as the rest of us, on occasion. Sometimes he will, in an excess of storing zeal, drill holes and fill them with completely useless objects, such as pebbles or hard-shelled nuts that he will never be able to open. He will also drill holes through the sides of a house, and then stuff quarts of acorns into these (for him) bottomless pits whence they can never be recovered—just like an amateur speculator dumping his money into a bucket-shop. Or he will work hard on holes that might be filled with acorns, and then go gadding off on some pointless errand and forget to come back and fill them.

Yet in spite of his occasional flights of folly, the California Woodpecker has a decided balance of sense in his favor, if his success in filling the oak woods of his native state with his own species may be taken as any criterion. By adopting the fruit of a wide-spread tree as his principal food, and by learning how to lay by a stock of it in secure storage places, he has been able to increase and multiply until he outnumbers his nearest competitor in the woodpecker family of the same geographical range in a ratio of about five to one. Science, Vol. LXX, no. 1825, December 20, 1929, Supple., p. XII.

Note: Dr. William E. Ritter's article, "The Nutritial Activities of the California Woodpecker (*Balanosphyra jormicivora*)" appears in Quarterly Review of Biology, vol. IV, no. 4, December, 1929, pp. 455-483.

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Those Dead Birds: A field note by C. W. Lockerbie in the October "Gull" gives an enthusiastic account, and a fascinating list, of dead birds found on the ocean shore line of San Francisco. On a five-mile stretch some ninety-two birds representing twenty species were seen in August and September.

Stimulated by this note, I have looked particularly for dead birds on the ocean beaches in the regions of Dillon's Beach, of Tomales Point, of Abbot's Lagoon and of Drake's Estero, all north of San Francisco, as well as on beaches on Monterey Bay to the south.

How many dead birds did I see? One, just one! And that was a very plain bird indeed, a simple California Gull. As for Auks, Auklets, Puffins and fancy birds of that sort, nary a remnant was met with.

The explanation? Does it not lie in the presence of the Farallon Islands directly west of the San Francisco beaches? The birds reported by Lockerbie came to their end, I take it, on these unique islands, and were then drifted by a west wind, all dead and decaying, to this fortunate beach. Alas, no such luck awaits on other ocean shores!—Herman de Fremery, November 12th, 1929.

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The Tower and Dive Flight of the Anna Hummer: During the Christmas census, on December 22nd, 1929, four Anna Hummingbirds were seen to perform their tower-and-dive flight. This flight is generally stated to be connected with the courtship period; its purpose being either to court the female (most authors), or, also, to intimidate enemies (Dawson). The earliest date that I find mentioned for this striking performance is "after the rains, often in January" (Hoffman). The questions arise: does the courting time in the Bay region begin as early as December 22nd, or does the Anna indulge in this peculiar flight at other than courting times? What is the earliest date at which the tower-and-dive flight has been observed?—Herman de Fremery.

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When the storks of the village of Grünewalde fly north from Africa this spring they will find their old home on the schoolhouse, but they will hardly know the place. For the schoolhouse had to be reconditioned during the winter, and the nest had to be taken down. This incidentally gave naturalists a chance to examine a stork's nest of championship proportions, before putting it back on the roof. The nest was over six feet in diameter and not much less than three feet high, larger by half than an ordinary stork's nest. It could contain four men sitting on chairs around a table. Sticks as thick as an arm had been built into its walls, and the interstices filled with moss, straw, hay and reeds. In odds and ends of space not needed by the storks, upwards of fifty sparrow families lived. Science (supplement), March 21st, 1930, Vol. LXXI, No. 1838.

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What Kind of Nest? A Marsh Wren was singing gaily in a salicornia marsh on a bright November day, near Moss Landing. No tules in sight. This made one think. Next day a rumor was reported from the Fish and Game Commission to the effect that "it is a frequent resident in such a marsh, and makes its nest therein."

I can find no description of its nest in so unusual a habitat. Are they built in the salicornia, and hence but a few inches above the water level, or at their usual height, in bushes on the borders of salicornia marshes? Are they globular, as is right and proper for a Marsh Wren, or are they open faced, as a neighboring Savannah Sparrow would build?—Herman de Fremery.

The Simplest Bird Names for Local Lists

Referring to the general purport of Mr. de Fremery's article in May issue of "The Gull," entitled "Specific Versus Varietal Names in Audubon Field Reports," I find myself able to express warm commendation. He has expressed the principles, it seems to me, admirably—that is, the general principles. I agree heartily that in local lists of the character of those ordinarily appearing in "The Gull," the briefest sort of appellation that applies exclusively to one kind of bird within one restricted territory should suffice—in the interests of conciseness; and conciseness makes for economy of energy in the reading as well as economy of cost in the printing.

However, Mr. de Fremery in his own comments shows how in some cases an amplification of name, to denote subspecies, may become necessary. Exceptions occur to any general rule that may be laid down. And thus the only fault I can find with his discussion is that, apparently to make his point, his enthusiasm carries him away when he implies that a profusion of words is "always unnecessary." For I can pick him up in one of the very cases he cites, namely, that of the Fox Sparrows.

Our Fox Sparrows, all subspecies of one species, include such different types as the huge billed, gray colored Yolla Bolly Fox Sparrow and the little billed, warm brown toned Kadiak Fox Sparrow. I venture to say that even an "amateur" (which the most experienced of us is, relatively speaking) can distinguish these two forms apart under fair conditions of light, with the unaided eye, just about as far as he can still distinguish apart a Kadiak Fox Sparrow and a Dwarf Hermit Thrush! And there are other races of Fox Sparrow almost as distinguishable out of hand.

The same situation, to almost the same degree, holds with some of the Song Sparrows, the Rusty and Modoc, for instance, which may winter on the same ground with a third, resident race; also with the two races of Rubycrowned Kinglets that one sees here on the Berkeley campus in winter (the Sitka and Western), though I will freely admit that the Eastern and Western cannot be distinguished save on the basis of specimens in hand, and even then individuals may be difficult to place under the one category or other.

The situation thus varies according to the race group dealt with. I should say that the simple term "Wren-tit" would quite suffice for this absolutely sedentary type of bird; for the locality would then be a determining clue as to which of the subspecies was represented. The same with the Bush-tit, Brown Towhee and California Thrasher. But neither "Towhee" nor "Thrasher" alone, is sufficient, for obvious reasons; and as suggested above it is feasible and highly desirable to use subspecific appellations in such groups as the Song Sparrows and Fox Sparrows. Subtle differences in voice, behavior and habitat relations, important for even the "amateur" to learn to detect, in great or less measure doubtless are always linked up with the observable differences in color or form.

So all I can do in rebuttal of Mr. de Fremery's argument, and only in exceedingly small measure, is to urge that it is frequently quite necessary to specify rather more fully than his sweeping final statement would indicate, the racial status of a bird, even in a local list. Certainly, a "conveniently short" name is preferable to a "cumbersomely long" one, if and whenever something of significance is not lost thereby. It is in the primarily geographical list, covering large territory and inclusive of two or more forms in each of many race groups that adequately amplified vernacular names become desirable, even essential, as, say, I employed them in my Lower California "Summation."—J. Grinnell, Museum of Vertebrate Zoology, Berkeley, California, May 17, 1930.

An extra May Field Trip was taken on Sunday, the 18th, to McCoy's ranch on the Arroyo Mocho Road five miles beyond Livermore.

Forty-three enthusiastic bird people were favored by an ideal day and many interesting species of birds which seldom if ever visit the Bay Region. The

ranch and its plant associations were too well described in "The Gull," June, 1929, to necessitate a repetition.

The visit was made a week earlier than last year. As a result a total of twelve species of birds were found nesting as against six species last year. Yellow Warblers, House Wrens, Brown Towhees, Bush-tits, Western Kingbirds and Gnatcatchers were all nesting inside of an area barely an hundred yards square which also contains the ranch home. This situation seems to indicate that birds do like human associations, and the theory of territorialism among birds is not borne out on the McCoy Ranch.

A pair each of Long-tailed Chats and Cowbirds delayed the luncheon hour considerably. A pair of Bush-tits had a nest unusual in construction by being secured firmly to a branch, at its lower end. A Killdeer's nest with four eggs was in plain view near the luncheon place. At another location on the ranch, Nuttall Woodpeckers had chiseled a home in the trunk of a Toyon tree, three feet above the ground. Near by in the drooping branches of a Valley Oak, eight feet above the ground, Cassin Vireos had a nest made of wool from sheep in a nearby pasture and decorated with spider egg cases. The parent bird remained obligingly in the nest while Mr. Cain made "movies" of it. A Barn Owl, frightened out of a Live Oak, furnished much entertainment as he flew back and forth in seeming bewilderment. Titmice and Lawrence Goldfinches had their families out of the nests. A Golden Eagle contributed his part to the day's program by flying low over our heads as he crossed the valley.

The day's birding was ended. Each group was comfortably settled in their car, ready for the ride home. Phainopeplas—the magic word of the day—were missing from the list, and much disappointment was expressed. At the last moment some of the party who had left previously returned with the report that Phainopeplas were present two miles up the road. Home was forgotten for a time. Phainopeplas they were, the climax to a perfect day.

Three miles out from Livermore, in a Sycamore grove, along the road, a pair of Lewis Woodpeckers had chiseled a hole in a Sycamore tree about fifteen feet above the ground. In the nest hole were four young, still naked, and their eyes not yet open.

A colony of Great Blue Herons were nesting in the tops of Sycamores along Alameda Creek, two miles from Dublin.

Birds observed on the McCoy Ranch: Turkey Vulture; Red-tailed and Sparrow Hawks; Golden Eagle; California Quail; Killdeer; Mourning Dove; Barn Owl; Anna Hummingbird; Red-shafted Flicker; Downy and Nuttall Woodpeckers; Western Kingbird; Ash-throated Flycatcher; Black Phoebe; Western Wood Pewee; Horned Lark; Cliff Swallow; California Jay; Plain Titmouse; Bush-tit; Slender-billed Nuthatch; House Wren; Russet-backed Thrush; Western Bluebird; Western Gnatcatcher; Warbling and Cassin Vireos; Yellow Warbler; Long-tailed Chat; Western Meadowlark; Bullock Oriole; Cowbird; Black-headed Grosbeak; Lazuli Bunting; House Sparrow; Linnet; Green-backed and Lawrence Goldfinches; Brown Towhee; Chipping Sparrow. Forty-one species.

Nests: Kildeer; Downy and Nuttall Woodpeckers; Western Kingbird; Black Phoebe; Titmouse; Bush-tit; House Wren; Cassin Vireo; Yellow Warbler; Green-backed Goldfinch and Brown Towhee. A total of twelve nests.

Birds observed along the route: Loon (sp. ?); Eared Grebe; White Pelican; Great Blue and Black-crowned Night Herons; Coot; Northern Phalarope; Western, California and Bonaparte Gulls; Forster and Caspian Terns; Burrowing Owl; California and Lewis Woodpeckers; Crow; Western Flycatcher; Violet-green and Barn Swallows; Robin; Cedar Waxwing; Phainopepla; Loggerhead Shrike; Lutescent and Pileolated Warblers; Red-Winged and Brewer Blackbirds; Purple Finch; Savannah, Lark, Nuttall and Song Sparrows. Thirtytwo species.

Members present: Mr. and Mrs. Lockerbie; Mr. and Mrs. Stephens; Mr. and Mrs. Thomas; Mrs. Northway; Mrs. Cummings. Misses: Ames, Berg, Cockefair, Cohen, Griffin, Harry, Kautz, Payne, Perdue, Pringle, Werner.

Messrs. Gordan Bolander, Bryant, Cain, Jencks, Carl, Clarence and James Smith, Swanton.

Guests: Mr. and Mrs. Millard; Mesdames Heald, Perdue, Persons; Misses Berta Bolander, Betty Heald. Messrs. Ashby, Axelrod, Bolander, Delareulle, Essig, Hawkins, Hopkins, Jussel, Rushing. Twenty-seven members and sixteen guests.—C. A. Bryant, Historian.

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May Field Trip was taken on Sunday, the 11th, to the home of Mr. J. C. Brock, a noted aviculturist, in Oakland, who had much of extreme interest for us, consisting of native and exotic birds in cages.

Among the exotic species was a Skylark who was spending a great deal of his time in executing somersaults from the bottom of his cage. He was apparently trying to rise as if to begin his flight, but slipping each time, ended up with a somersault.

A pair of Canaries from the Canary Islands were interesting on account of being of the species from which our caged Canaries originated. An English Linnet and a Goldfinch were interesting in comparison with our native species. A Saffron Finch from Brazil seemed happily mated with a Canary.

Among the native species was a pair of Bullock Orioles one year old and still in juvenal plumage. Mr. Brock has discovered that a male Bullock Oriole does not acquire adult plumage until the end of his second year; a two-year-old male reared from a nestling has proven this. This same individual has copied the Linnet's song. Purple Finches and Linnets lose their red coloration in captivity, acquiring yellow instead.

A Hermit Thrush, captured in Redwood Canyon, has retained the friendliness, intelligence and interest, characteristic of its species.

A Lutescent Warbler, three years in captivity, has lost his orange crown patch, and has learned to subsist and thrive on a diet of seeds as well as insects.

A Western Bluebird, captured on Mr. Brock's lawn, is fed upon flies especially prepared and imported from England. All captured birds must be fed upon their natural foods for at least three days after capture, when their diet may be modified.

Other native species present were: California Quail, Mourning Dove, Horned Lark, Cedar Waxwing, Black-headed Grosbeak, Lazuli Bunting, Pine Siskin, Willow Goldfinch, and Junco. All individuals appeared to be happy and contented.

After visiting Mr. Brock, a walk was taken to Mills College Campus and into the adjacent hills. The walk through the campus proved again that many birds do prefer human associations, no less than twenty-four species being noted there.

The Olive-sided Flycatcher was the first to greet us, then the Western Flycatcher. Three species of Warblers and ten of the Sparrow family were present. A pair of Juncos had young in a nest. Purple Finches sang incessantly.

From patches of chaparral on the hillsides, Lazuli Buntings were singing. From the tops of the oaks and redwoods Ash-throated and Olive-sided Flycatchers were calling. A Thrasher was heard in full song high up on the side of a canyon, and a Great Blue Heron was seen sailing over a nearby hill.

A few ambitious members climbed to the Leona Heights quarry and were rewarded with the presence of White-throated Swifts.

Birds observed were: Great Blue Heron; Red-tailed and Sparrow Hawks; California Quail; White-throated Swift; Anna and Allen Hummingbirds; Red-shafted Flicker; Ash-throated, Western and Olive-sided Flycatchers; Cliff Swallow; Steller and California Jays; Plain Titmouse; Bush-tit; Wren-tit; House and Bewick Wrens; California Thrasher; Robin; Russet-backed Thrush; Warpling Vireo; Lutescent, Yellow and Pileolated Warblers; Meadowlark; Brewer Blackbird; Black-headed Grosbeak; Lazuli Bunting; House Sparrow; Purple Finch; Linnet; Pine Siskin; Green-backed Goldfinch; Spotted and Brown Towhees; Oregon Junco; Nuttall and Song Sparrows. Forty species.

Members present were: Mr. and Mrs. Lockerbie, Mr. and Mrs. Stephens, Mr. and Mrs. Thomas; Mesdames Bracelin, Cummings, Pitman; Misses Ames,

Berg, Boegle, Cohen, Kautz, Pringle, Rinehart, Swasey; Dr. Card; Messrs.

Bryant, Jencks, Lastreto, Myer, Parry, Clarence and James Smith, Swanton.

Guests: Mesdames Persons, Sterne, Stoner; Misses McNeal, Weich
Messrs. Black, Pitman, Reed, Vasconsellos, Webb. Twenty-six members, te Misses McNeal, Weick; Twenty-six members, ten guests.—C. A. Bryant, Historian. a a a

Feed, Baths and Trays

The following is given in response to many inquiries received for further

information on the feeding of birds.

Bird seeds are most cheaply and conveniently bought in 100-lb. sacks. I get mine from George G. Prytz, San Pablo and 40th Streets, Oakland. Delivered, the hemp seed comes to 4c a lb., baby-chick feed, 3.5c a lb., and kaffir corn 2.8c a lb.

The suet holder which I have found most satisfactory is the Dodson Food Basket for Birds, made by Joseph H. Dodson, Kankakee, Ill. Kankakee is 50c each; shipping weight six ounces; \$5.00 for a dozen.

Bird baths of cast cement, with a rough surface on which the birds will not slip and of an appropriate depth and incline, may be had of Joe Chiantaretto & Son, corner of San Pablo and Blake Streets, Berkeley. I don't remember the

price, but they are not expensive.

Bird feed-trays: I have mine made by a carpenter, P. A. Lux, 2011 Milvia Street, Berkeley, according to specifications of my own devising: length 38", width 20"; a raised border one inch high prevents the food from being blown off by the wind, or being scratched off by enthusiastic Towhees; partitions of the same height divide the tray into four compartments, which allow one to segregate different kinds of food and observe bird preferences; and lastly, and importantly, there are \(\frac{3}{4}\)-inch drain holes in each compartment, covered with copper mesh; all wood painted green. The result: very efficient in use, quite pleasing to look upon, and costing more than anticipated.

I don't know of any place where brush-piles, ready made or custom built, may be bought. I wish I did. I never showed greater devotion to the cause of more and happier birds than I did in roaming the country-side snitching dead branches from the landscape of Alameda County. My car still nurses the scratches of transport. But I will never again live without a brush-pile in my garden. And it won't look so terrible if you cover it with vines. I planted two Kudzu vines, two moonflower vines and three Australian tea vines. One of them is growing; it shows half of a leaf,—the other half was eaten by a bird.—

Herman de Fremery.

Book Notice: "The Book of Bird Life," by Arthur A. Allen, published by Van Nostrand Co., 1930, price \$3.50.

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To identify the species of birds met with on a trip in city park or in countryside; to record and perhaps to report these birds as seen or heard in a certain region on a certain date,—this seems to be the main ornithological interest of most amateur bird students.

Allen's book, however, dealing with neither identification nor distribution, is addressed to a different and smaller group: it is a stimulus and a guide to another interest. It outlines an answer to many a "how" and "why" about bird structures and bird habits; it is an introduction, for the amateur, to the natural history of birds.

Part 1 begins with a brief outline of the evolutionary history of birds, of the bases for their classification and of their distribution in life zones. It then discusses bird communities; the birds of woods and of woodland borders, of orchards and of fields, of marshes and of shores. Other topics are: the migration, the courtship, the home-life of birds; their adaptation to their mode of living; their plumage, its coloration and its changes.

Part 2 deals with those methods of bird study used primarily in the field

with living birds.

The book has no fewer than 275 illustrations, mostly photographs by Prof. Written in popular style, it is instinct no less with the author's wide scientific knowledge than with his sensitive esthetic appreciation.

Audubon Notes

June Meeting will be held on Thursday, the 12th, at 8 P. M., Room 19,

2nd floor, Ferry Building.

The speaker of the evening will be Mr. Joseph Slevin, of the California Academy of Science, who will give an illustrated talk on his recent scientific trip to Australia.

June Field Trip will be taken on Sunday, the 15th, to Alpine Lake, Marin County, starting from Ross and going over an easy and scenic road. Return trip may be made either by way of Fairfax or Ross. Purchase round trip tickets to Ross, 60c. Take Sausalito Ferry, foot of Market Street, at 8:15 A. M. Bring luncheon and filled canteens. Leaders, Miss Ames and Mr. Lockerbie.

The 160th regular May Meeting: meeting was held on May 8th, in Room 19, Ferry Building, with eighty-three members and guests present. President Brighton C. Cain, presiding.

A motion was made and carried "That this Association endorse the efforts of the National Association of Audubon Societies and their associates to protect the Bald Eagle, and that we instruct President Cain to take whatever action is necessary.'

Mr. Cain called to the attention of the members an article appearing in the "Safety Valve" of the "Chronicle" and the printing in full of an article on the flight of birds, by Donald Mc-Lean, taken from "The Gull."

A motion was passed also "That only the specific English names of birds be used in the text of "The Gull."

Field observations were reported as follows:

E. L. Bickford of Napa: April 11th, 12th and 13th, tide flats, Mare Island Navy Yard, migration wave of birds including from one thousand to fifteen hundred Long-billed Dowitchers; Black - bellied Plovers, Red - backed Sandpipers and Semi-palmated Plovers. By April 15th, two days later, only one hundred and fifty Dowitchers were seen. April 29th, in small lagoon about half mile from bay shore, thirteen Northern Phalaropes. April 15th, Napa Valley, White-tailed Kite nesting. April 15th to 29th, lagoon near Trancas, upper Napa River, two Wood Ducks.

Brighton C. Cain: April 26th and 27th, eastern end of Dumbarton Bridge, Long-billed Dowitchers. May Mountain View Cemetery, Oakland, Townsend Warbler.

Mrs. Lockerbie: April 24th, Cliff House, six Wandering Tattlers. 3rd, Land's End, five Pigeon Guillemots.

Mr. Lockerbie: May 4th, San Francisco Beach, Hudsonian Curlew, Red-Western and Least Sand-Sanderlings, Semi-palmated pipers. Plovers, Wandering Tattlers. 27th, Bay Farm Island, Hudsonian Curlew, Western, Red-backed and Least Sandpipers, Semi-palmated and Blackbellied Plovers, Killdeer, Godwits, Willets, Dowitchers, Sanderlings and one Knot.

Mrs. Stephens: May 4th, Chain of Lakes, Golden Gate Park, flock of Cedar Waxwings.

Mr. Jencks: April 17th, Mosswood Park, Oakland, a Flicker showing yellow coloration, seen again on April 25th, 26th and May 4th. April 8th last date of hearing of the Saw-whet Owl, which has been in his vicinity since last October.

Leslie Hawkins: April 27th, Reliez Valley, Calaveras Warbler singing.

Herman de Fremery: Adult Juncos feeding their young kaffir corn and baby-chick food by stuffing the grains down the youngsters' throats. Mr. de Fremery pointed out the contrast between this food and the soft insect food usually reported preferred by Juncos.

Carl Smith: May 4th, Golden Gate Park, Mallard with seventeen ducklings.

Mrs. Kibbe: May 3rd, Dumbarton Bridge, hundreds of Northern Phalaropes and two Pectoral Sandpipers. Also in the same vicinity eighteen nests of eggs and young of the Great Blue Heron found on the ground.

The program of the evening was an interesting talk by Dr. Harold C. Bryant, on the interrelations pertaining to birds. Dr. Bryant maintained that predators perform a very important function in nature's scheme by killing off the sick and weakly, and consequently leaving only healthy stock to reproduce its kind. Dr. Bryant

cited many instances bearing out this contention. He also recommended for reading on this subject, Dr. Charles S. Elton's book, "Animal Ecology," as well as a treatment of the subject in the 14th edition of Encyclopedia Brittanica.

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Directors' Meeting: The following new members were elected: Masters Harold Swanton and Gordan Bolander, of Oakland.

The resignations of Miss Haefner of Berkeley, and Mrs. Juda of San Francisco were accepted.

A motion was passed endorsing the movement of the Associated Sportsmen in their endeavor to keep Spring Valley Water properties for a bird refuge.

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Audubon Research Projects: Eight general fields for research by co-operating members of the Audubon have been approved by the Research Committee. Outlines of these have been mimeographed and will be available for distribution to interested members at the June meeting. Those who will not be present may obtain copies by writing for them to the Secretary.

The proposed projects deal with: The Life Zones and Bird Habitats of the Bay region; Bird Censuses and the following species: Egret Heron, Allen and Anna Hummingbirds, Barn Owl, White Pelican and Cliff Swallow.

The members of the Research Committee are: Herman de Fremery, Chairman; Carl Smith, Vice-Chairman; Mrs. Bessie Kibbe, Secretary, and Mrs. Bracelin, C. W. Lockerbie and Miss Cornelia Pringle.

Further projects will be submitted later, if need be.

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Editor's Notes: Now that the vacation months are here, many Audubon

members will travel to different parts of the State, and will have more time and better opportunities to observe and study birds than they have all the remainder of the year. Whether you will return to that favorite spot in the high Sierras; whether you will venture to some new region or whether you will camp by lake or stream or in the high country reached only by pack train, you will see many birds, many of your old friends, and perhaps some interesting new ones to add to your list. It is hoped that you will take notes, especially of anything of unusual interest, with a view to sharing it later with your fellow-members through the medium of "The Gull." Perhaps you have already had interesting experiences but have never thought of putting them into writing The editor believes for "The Gull." that much interesting and valuable material is being withheld, though, of course, not intentionally. And it will also add interest to "The Gull" to have a few new contributors. Bear it in mind this summer, and send in at least a few lines. It will be enjoyed by all the members and appreciated by the editor.

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Our membership for 1930 is making a good showing. A few have dropped out because of unavoidable circumstances. Quite a number of new members have made up this loss, while a very few others, not having paid their dues, remain in the doubtful list. It is hoped these latter will stay in the Association and remit their dues without further notices. After the June issue, "The Gull" will not be mailed to members in arrears.

Membership beginning in July is \$1.50 for the remainder of the year. It is a good time to join. Tell a friend who is interested in the study of birds about the Audubon.

Audubon Association of the Pacific For the Study and Protection of Birds

PresidentBrighton C. Cain221 Thayer Bldg., OaklandRecording SecretaryMrs. Bessie W. Kibbe. Room 510, Russ Bldg., San FranciscoCorresponding SecretaryC. B. Lastreto260 California St., San FranciscoTreasurerMrs. A. B. Stephens1695 Filbert St., San Francisco

Monthly meeting second Thursday, 8 P. M., Room 19, Ferry Building.

Address Bulletin correspondence to Mrs. A. B. Stephens, 1695 Filbert St., San Francisco.

Subscription to monthly Bulletin, 75c per year. Single copies, 15c.

Membership dues, payable January 1st, \$3.00 per year.

Members are responsible for dues until written notice of resignation is received by Treasurer.