continuance of hunting, on the ground that hunting is instinctive and cannot quickly be suppressed. He even hints, if I get his meaning correctly, that there is danger of our non-persistence as a species if we refine too much "our manner of exercising the hunting instinct." But hunting to kill wild animals is certainly no more essential to beneficial exercise of this instinct than is battling one another to kill because of our instinct to fight. The latter instinct is now ideally exercised in modified degree, to the general good, as Leopold points out, by the substitution of athletic sports and games. By the same token, no attempt (because probably futile) need be made to suppress totally the hunting instinct; rather may it be directed apart from the point of actual killing. I, personally, have hunted with great zest, to bring down an objective, to bring it into my possession, to kill it. I have also, latterly, hunted with I think equal zest, bringing into rlay all those recreational values that Leopold stresses, but with the object of making census counts of the animals, of seeing how they behaved under given circumstances, or of seeing what their effects on their surroundings might be; and no individual animal was "brought to bag."

After studying animal natural history (including that of man) somewhat, from an evolutionary standpoint, I have come to have great respect for that perquisite which may be called modifiability. This feature of animals, varying in degree in different kinds to be sure, requires more or less time for its operation; but one cbserves that substitution or adaptation very frequently comes in, to hasten the rate of modification of a given structure or instinct. Wild-life values for recreation can be realized upon at least as beneficially, I am confident, without any killing at all, by substituting as an ultimate objective, the photograph, the banding record, the notebook record, or that intellectual attainment of understanding which some think is the most desirable goal for any human activity.

If and wherever, on government or private lands, game is to be produced as a crop, then game management according to the natural history principles so soundly laid down by Leopold is to be practiced in order to get the best results. But we cannot grant that the production of a maximum number of animals to be shot for sport is the highest purpose to which to put the bulk of the uncultivated lands that belong to the public. There is a large and, I think, increasing group of persons who do not shoot, part of them because they do not want to, part of them because they are not economically situated so they can.

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Someone, possibly Leopold himself (and no one now has proven himself as well qualified by knowledge of animal behavior and human attributes, together, than he), should now write a treatise upon wild-life administration (by means of proper treatment of the environment) from the broadest point of view, with all the human, long-time interests fully heeded.—J. GRINNELL.

## MINUTES OF COOPER CLUB MEETINGS

## NORTHERN DIVISION

MAY.-The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held at 8:00 p.m., Thursday, May 25, 1933, in Room 2003, Life Sciences Building, Berkeley, with about fifty members and guests present and President Pickwell in the Chair. Minutes of the Southern Division for April were read. Proposals for membership were as follows: Roland Herrick Alden, 427 Embarcadero Road. Palo Alto, California, and Miss Alice Stewart Mulford, 1637 Spruce St., Berkeley, California, by E. L. Sumner, Sr., through the Western Bird-banding Association; Henry Sheldon Fitch, Museum of Vertebrate Zoology, Berkeley, California, by Jean M. Linsdale. A letter was read from Mr. A. C. Bent of Taunton, Massachusetts, expressing his appreciation of the action of the Cooper Club in electing him to Honorary Membership.

President Pickwell reviewed briefly the seasonal status of the bird-life in the vicinity of San Jose: the late lingering of Band-tailed Pigeons and Cedar Waxwings, the presence of a large number of migrating Western Tanagers, and the waning of the songs of many resident birds, some of which have already completed the nesting cycle.

Mr. E. L. Sumner, Sr., asked if other banders had found the Golden-crowned Sparrows staying later than usual, as he had. He gave as the latest record that of a bird trapped by Mrs. Edwin Blake on May 18, six days later than previous records show. Mrs. Lindsey answered

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that her latest record of the Goldencrown this year at Hayward was of one trapped on May 16. Other things of interest in that vicinity which she had noticed were the presence for several days of three Western Tanagers, and the nesting, hitherto unseen by her, of Pileolated Warblers along San Lorenzo Creek. While staying at Furnace Creek Ranch, Death Valley, during the first week of April, Mrs. Lindsey met a small Mexican girl one morning on the way to school holding carefully a Ruby-crowned Kinglet in her cupped hands. The child had picked the bird up from the ground where it had evidently fallen exhausted during the heavy windstorm which had just occurred. Mrs. Mead reported that on the morning of May 21 members of her family had encountered a flock of about fifty Western Tanagers on the ground near Chico, many of them on the highway.

Mr. Brighton C. Cain, who a year ago banded young Red-breasted Nuthatches in a nest box at the Scout Camp at Diamond Canyon near Oakland, has found a pair of the birds this year nesting just outside of the camp in a hole made by Downy Woodpeckers in a dead pine. One of the pair wears a band. He also told of present conditions at the Los Baños Game Refuge where rising waters have, during the last two weeks, destroyed many nests.

The paper of the evening was "The Coast Bush-tit," as studied for the past two years on the Stanford campus by Miss Alice Baldwin. Miss Baldwin described in detail the habits of the large winter flocks, the breaking up of these flocks in January and February, the protracted nest building of February and March, the rapid construction of later nests, and somewhat of the rearing of the young. Many interesting facts were brought out and some which were puzzling as well, such as the fact that although both parents roost in the nest from the time that construction permits it, and during the period of egg-laying, yet all young hatch on the same day.

Adjourned.—HILDA W. GRINNELL, Secretary.

JUNE.—The June meeting of the Northern Division of the Cooper Ornithological Club was held at 8:00 p.m., Thursday, June 22, 1933, in Room 2003, Life Sciences Building, Berkeley, with about thirty members and guests present. In the absence of officers, Mr. Joseph Grinnell presided. Minutes of the Northern Division for May were read and approved. Minutes of the Southern Division were read. Mr. Ward B. Minturn, 2840 Mariposa St., Fresno, California, was proposed for membership in the Club by Mr. John G. Tyler.

Mr. Swarth commented on the description of the downy plumage of the Killdeer given in a recent English periodical. Mr. Grinnell briefly reviewed the book "Game Management," written by Aldo Leopold and published by Scribners. He pronounced it to be an excellent piece of work, the best yet in its field, and cleverly illustrated by Allan Brooks.

ly illustrated by Allan Brooks. The topic of the evening's program was "Field Observations," and the first volunteer was Mr. William H. Behle who told of nesting birds noted on a month's field trip just completed, in Humboldt and Trinity counties, where, as elsewhere this year in California, the season is very The first nest found was that of late. a Monterey Hermit Thrush, three feet up in a hole in the side of a dead Doug-Western Bluebirds were las spruce. nesting, Canada Nuthatches and Flickers were excavating nest holes, and three eggs of the Sooty Grouse were found exposed on a road by a brush-cutting crew. At the third camp made, a Junco brooded on her nest, undismayed when the tent was set up within a few feet of her nest-site. Mrs. Allen recorded Varied Thrushes with young, seen at beautiful Canyon Park, four miles from Scotia, in Humboldt County. There, at Dyerville, and on up the Redwood Highway to Crescent City, singing Whitecrowned Sparrows were heard and the difference noted between the song of that subspecies (Puget Sound) and the one (Nuttall) breeding in Berkeley. Mr. Grinnell remarked that sixteen miles inland, at 3000 feet altitude, near Coyote Peak, he had heard the former subspecies singing and was surprised to find it so far from the coast.

Mr. Ernest I. Dyer gave a concise account of the birds nesting at his Piedmont home, a list of so much interest that it is printed elsewhere in the CONDOR in its entirety. Mrs. Edwin B. Mead told of hearing Hermit Thrushes singing on June 13 at Santa Cruz Big Trees and of hearing the song of the Russet-backed twice and that of the Hermit four times, on a

three mile walk back of Brookdale on June 19. Mr. Wilfred Frost told of seeing a Great Blue Heron flying over the campus on June 22, and Mr. Grinnell reported Prof. Setchell's observation of the attempt of a Brown Pelican to alight in the swimming pool at the men's gymnasium on June 21.

Mr. B. D. Dexter reported upon the nest of a Red-tailed Hawk found seventy feet up on the guard of an electric tower in the San Joaquin Valley between Kingsburg and Corcoran. When found on May 12 the nest contained three young. The serrated edge of the guard, designed to keep birds from perching there, had served admirably to hold the foundation structure of the nest, a large tumbleweed. Mr. Dexter's contribution was illustrated with three excellent slides.

Mr. E. L. Sumner, Sr., gave a late Fox Sparrow record, of an individual which had repeated seventy-one times in his traps and which was found killed on May 13. He added that the bird had perhaps not migrated because of an injured claw. He told also of a Wren-tit, no. 91519, banded in 1925 by Mr. E. D. Clabaugh, trapped by Miss Erickson in February, 1931, and again in February, 1933, and now wearing two red celluloid bands on the right leg, one above and one below the aluminum band. This individual was seen by Mr. Sumner on June 22. Mr. Sumner pointed out that this bird is now at least nine years old. Mr. Glen Vargas reported that Western Wood Pewees have suddenly become common at Hayward and that he has found a Western Flycatcher nesting in a blacksmith shop near the town. Mrs. Allen told of visiting Mr. Brock's aviary near Oakland on June 14 and seeing a Cowbird nearby, attracted by the presence of three captive Cowbirds. On the next day Mr. Brock reported five free Cowbirds in the vicinity. Mr. Paul Lehman contributed notes on a day spent in Sonoma County, where he saw six Yellow-breasted Chats, ten Traill Flycatchers, one Osprey, and two Vaux Swifts. Mr. Grinnell gave a detailed account of a male Sparrow Hawk which was shot while eating a Hermit Warbler.

Adjourned.—HILDA W. GRINNELL, Secretary.

## SOUTHERN DIVISION

MAY.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held on Tuesday, May 23, 1933, at 8:00 p.m., in the Los Angeles Museum, Exposition Park, Los Angeles. President Robertson presided and about 40 members and guests were present. Minutes of the April meeting of the Southern Division were read and approved. The membership application of Kenneth L. Renoll, 445 South Franklin Street, Hanover, Penn., proposed by W. Lee Chambers, was presented.

A letter from Dr. Murray Luck, requesting the Southern Division to appoint two members to represent it at the Affiliations Committee meeting to be held in conjunction with the annual meeting of the Pacific Division of the A.A.A.S., in Salt Lake City, was read. It was moved by Mr. Howard Robertson, seconded by Mr. J. R. Pemberton, and carried, that the President appoint such representatives. President Robertson gave a brief account of the annual meeting of the Cooper Club held in Berkeley, May 5 and 6, and called on Messrs. Willett and McCoy who confirmed his report that it was a most enjoyable and successful meeting.

Mr. Willett stated that he had visited San Diego over the week-end and learned that Mr. Frank Stephens had had a very severe heart attack. He called on Mr. Stephens and found him improved, though still confined to his bed. Mr. Willett suggested that the secretary write to Mr. Stephens expressing the hope and desire of the Southern Division that his recovery should be prompt and complete. The secretary was so instructed.

President Robertson opened the subject of the roosting places of Vaux Swifts while in migration by telling of seeing large numbers of them flying in a compact mass around eucalyptus trees on San Gabriel Boulevard, as if they were preparing to roost in those trees. He also told of a report from Miss Blanche Vignos of hundreds of Vaux Swifts having been taken in a dead and dying condition from the chimney of a cottage in Santa Barbara. The swifts were found to have gone down the chimney and into the rooms of this unoccupied cottage. The doors and windows were opened and the swifts driven out and the lower end of the chimney was closed with sacks to prevent the swifts from re-entering the rooms. The next day it was noted that they had continued to go down the chimney. On removing the sacks hun-

dreds of dead and dying swifts were found. These were taken to the ornithologist of the Santa Barbara Museum who examined the stomachs of a few and found them to be empty. It is assumed that the birds died of exhaustion and suffocation. Mr. W. J. Sheffler of the Whittier Ornithological Academy, stated that tens of thousands of these swifts settled down on the city of Orange on the evening of May 9, and clung three or four deep to the trees. The next morning hundreds were lying dead on the ground. It was his belief that these birds had been turned back in their northward migration by a storm which was then over the Tehachapi Mountains.

Mr. Roland C. Ross introduced Mr. Theodore H. Scheffer, of Puyallup, Washington, and visiting southern California during the last few winters studying the pocket g opher. Mr. Scheffer spoke briefly of the Pacific Northwest Bird and Mammal Society, of which he is a trustee, and of his pleasure in meeting with the Cooper Club of which he has recently become a member.

The program of the evening was given by Mr. Wright M. Pierce, who illustrated his paper on "Life History Studies of the Red-bellied Hawk" with a series of splendid motion pictures showing the development of the young hawks from the egg to the time of leaving the vicinity of the nest in the San Bernardino Valley.

Adjourned.—HAROLD MICHENER, Secretary pro tem .

JUNE.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held at 8:00 p.m., Wednesday, June 28, 1933, at Los Angeles Museum, Exposition Park, Los Angeles, with forty-two members and guests present and President Robertson in the Chair. The minutes of the May meeting were read and approved. Minutes of the Northern Division for May were read by title only. The membership application of Cyrus F. Tolman, Jr., 506 Mayfield Ave., Stanford University, California, proposed by W. Lee Chambers, was presented.

President Robertson brought to the attention of the Southern Division the contents of a letter received from Dr. J. Murray Luck, secretary of the Pacific Division of the A.A.A.S., in which it was asked for an expression of opinion regarding the advisability of changing the 1935 meeting date from June to September. After discussion, it was moved by Dr. Raymond B. Cowles, seconded by Dr. Loye Miller, and carried that the Southern Division of the Cooper Ornithological Club suggest the month of June as its preference for the meeting date of the A.A.A.S., because (1) should the meeting be held in September it would mean a hurried trip for eastern academic members due to the re-opening of colleges and schools; (2) if held in June, at not too early a date, the schools would be closed and there would be time for sightseeing after the meeting; (3) southern California is usually cooler in June than in the month of September.

A letter was read from Mr. A. C. Bent of Taunton, Massachusetts, expressing his appreciation of the action of the Cooper Ornithological Club in electing him to honorary membership. Also, a letter was read from Mr. Frank Stephens, of San Diego, California, acknowledging his thanks for the sympathy and good wishes extended by the Southern Division and stating that he was "as well as ever."

Mr. A. Brazier Howell, an old Southern Division member, now a resident of Baltimore, Maryland, was introduced by Dr. Loye Miller and briefly recalled earlier days. He then spoke of the unique position held today by the Cooper Club in the United States, of the loyalty among its members, of the intimate part it has played in the development of ornithology in the West; and he expressed his regard for the high degree of training which the young western ornithologist is receiving. His inability to attend any of the annual meetings of the Cooper Club was regretted, and the suggestion was made that if the meeting could be held in June in all probability eastern members might find it more convenient to be present.

Other members present reported on many interesting field observations covering California in general and southwestern Sonora, Mexico, in particular; after which, Mr. Wright M. Pierce introduced a live, male, Prairie Falcon. The bird, secured at about the time it was ready to leave the nest, had been in captivity five weeks and was now quite tame, very handsome, and much admired. Life history notes regarding family, food habits, disposition, behavior, etc., were presented both for entertainment and discussion.

Meeting adjourned. — LAURA B. LAW, Secretary.