density of birds within that community (see Leopold, Game Management, 1937:132).

All in all, there is much in this paper that will interest ornithologists and ecologists, and no student of bird populations can afford to overlook it. Beecher's work is one of the most extensive population studies made in America, and his comparative data on diverse communities, subpected to consistent analysis, is worthy of careful study. Throughout the paper, there is evidence of keen field observation, and the general discussions of nesting factors are replete with thought-provoking ideas.—Frank A. Pitelka.

A substantial contribution to western ornithology is made by Robert T. Orr in his paper entitled, "A study of the birds of the Big Basin region of California." (Amer. Midl. Nat., 27, 1942:273-337, 16 figs.). The area concerned lies in adjoining parts of San Mateo and Santa Cruz counties and extends from the coast to the redwood areas eight miles inland. Emphasis is placed on the occurrence of birds in relation to the major biotic associations, and only those species observed by the author are listed. There is no consideration whatsoever of the subspecies of birds involved. In general this omission seems justified in a paper of this kind, although occasionally it leads to confusion where separate races of the same species evidently are involved, one of which is summer resident and the other winter visitant. Difficulty of this kind is most noticeable in the Hermit Thrushes, Savannah Sparrows, Oregon Juncos and White-crowned Sparrows. The days of observation total 176, spread through the seasons, but with scant representation in fall and early winter. Particularly well noted were the birds of the shore line .-ALDEN H. MILLER.

MINUTES OF COOPER CLUB MEETINGS

SOUTHERN DIVISION

AUGUST.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held on Tuesday, August 25, 1942, at 8:00 p.m., in Room 145, Allan Hancock Foundation, Los Angeles, with President Sherwin F. Wood in the chair and 14 members and guests present. Minutes of the Southern Division for July, 1942, were approved as read. The following application for membership was read: E. Alexander Bergstrom, Southern Arizona School, Tucson, Arizona, proposed by W. Lee Chambers.

The resolution recommending that George Willett be elected to honorary membership in the Cooper Ornithological Club in recognition of his outstanding contributions to the science of ornithology and to the club was read for the second time in compliance with the by-laws. A motion for its acceptance was made by W. A. Kent and seconded by H. L. Cogswell. A vote

was then taken and Mr. Willett was declared unanimously elected to honorary membership by this division.

The meeting was then opened to reports on recent observations. W. A. Kent gave a detailed description of a trip made a year ago by himself and Mrs. Kent to Jasper National Park and return, discussing observations on many of the birds they had seen on the trip.

H. L. Cogswell described a bird survey made by him on a 40-acre tract of land near Pasadena. The area was covered principally with chaparral. He enumerated 13 species of nesting birds found there and reported that there were 116 pairs in

J. S. Garth reported hearing from our secretary, Jack von Bloeker, stating that he was having a very successful trip in Oregon. Dr. Garth mentioned seeing many Lark Buntings near Gila Bend, Arizona, on a trip last spring. He gave a detailed description comparing the north and south rims of the Grand Canyon and pointing out the difference in elevation existing on the two sides, the North Rim representing the Canadian Life-zone and the South Rim the Transition Life-zone.

George Willett reported seeing many Blackchinned Hummingbirds and gave a resumé of his investigations on the hummingbirds of the Channel Islands made before the Pearl Harbor event.

Dr. S. F. Wood reported a new publication on geese and ducks by T. M. Shortt.

Adjourned.—IRWIN D. Nokes, Acting Secretary.

SEPTEMBER.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held on Tuesday, September 29, 1942, at 8:00 p.m., in Room 145, Allan Hancock Foundation, Los Angeles, California, with President Sherwin F. Wood in the chair and 54 members and guests present. Minutes of the Southern Division for August, 1942, were approved as read. The following application for membership was read: Roy Leonard Kilby, 1514 Aberdeen Street, Vancouver, British Columbia, Canada, proposed by W. Lee Chambers.

Dr. S. F. Wood reported that he had just received a copy of a new publication, "Some Common Birds of the Los Angeles County Coast," by George Willett, Los Angeles County Museum, Science Series No. 5, Zoology Publication No. 1. Also it was announced that the Cooper Club has just received from the Department of Mines and Resources of Canada a copy of a pamphlet entitled "The Migratory Birds Convention Act and Federal Regulations for the Protection of Migratory Birds."

The President then introduced the speaker of the evening, Roland Case Ross, who presented an interesting talk entitled "Bird Songs, East and West." Mr. Ross traced the history of recording bird songs on wax discs for the phonograph, discussed the variability in songs with illustrations of variations in the songs of the Western Meadowlark, Canyon Wren, and other species, and gave an enlightening explanation of the need for expression in creatures of high sensitivity. In conclusion, he played for us, selected phonographic representations of bird songs from the imitations made by Professor Loye Miller, of the University of California at Los Angeles, and from the field recordings by the Brand Bird Song Foundation, of Cornell University.

Adjourned.—Jack C. von Bloeker, Jr., Secretary.

NORTHERN DIVISION

August.—The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held on Thursday, August 27, 1942, at 8:00 p.m., in Room 2503 Life Sciences Building, University of California, Berkeley, with Mr. W. I. Follett presiding and about 35 members and guests present. Minutes of the Northern Division for July were read and approved. Minutes of the Southern Division for June were read. There was one proposal for regular membership in the Club: Jean H. Russick, 2531 Ridge Road, Berkeley, by Hilda W. Grinnell. Two recommendations for Honorary Membership were given their second readings before the Northern Division and motions for their acceptance entertained. That of Harold M. and Josephine R. Michener, originating in the Southern Division, was moved by Alden H. Miller, seconded by E. L. Sumner, Sr., and unanimously carried. That of George Willett, originating in the Northern Division, was moved by Hilda W. Grinnell, seconded by Mrs. H. P. Bracelin, and likewise unanimously carried.

Recent field observations were reported by Mrs. Kelly and Mrs. Austin, who described flights of shearwaters, first noted at Stinson Beach, Marin County, and later near the Fleishhacker Zoo in San Francisco where they were moving toward Halfmoon Bay. In the region of the Olympic Golf Club, they were working southward on an increasing tide, while at Moss Beach they had again turned northward, apparently describing a huge ellipse out to sea. Black Turnstones and Northern Phalaropes were also seen along the San Francisco beaches, and shorebirds were plentiful near the San Mateo Bridge and at Alameda.

Mr. Covel brought extensive notes from Manzanita Lake, Mount Lassen, where he spent from July 7 to 15 and August 6 to 10. He mentioned the "eternal flycatcher problem," that of distinguishing between the Wright and the Hammond. In this matter, Mr. Milton Ray brought out certain valuable points on habitat, nest and eggs. Mrs. Grinnell commented that it was usually the

oologist who was first able to recognize the flycatcher dealt with.

The chairman called on Mr. Fred Packard, a guest at the meeting, for a few remarks pertaining to the possible transfer of certain Federal lands to lumber companies in exchange for threatened Sequoia groves which would, if secured, be added to adjacent State of California Parks.

The speaker of the evening, Mr. Frank A. Pitelka, told of "Early Summer Field Studies in the Owens Valley Region." In company with Ward Russell and Donald Hoffmeister, of the Museum of Vertebrate Zoology, he spent several weeks in May and June of this year in that region, which he described geographically and ecologically. Lantern slides made from the expedition's photographs illustrated the various habitats, as Mr. Pitelka discussed the bird life observed.

Adjourned.—Frances Carter, Recording Secretary.

SEPTEMBER.—The regular monthly meeting of the Northern Division of the Cooper Ornithological Club was held on Thursday, September 24, 1942, at 8:00 p.m., in Room 2503 Life Sciences Building, University of California, Berkeley, with Joe T. Marshall, Jr., presiding and about 35 members and guests present. Minutes of the Northern Division for August were read and approved.

A letter to Miss Margaret Wythe from Ned Stone, formerly of the Museum of Vertebrate Zoology, was read for the wealth of field notes it contained on birds seen from the Alaska Highway, where Mr. Stone is working as a surveyor.

Mrs. Kelly had recorded a Mockingbird and a Yellow Warbler on the Berkeley campus on September 23. Milton Seibert gave September 14 as the date of arrival of the Puget Sound Whitecrowned Sparrows in east Oakland. Miss Carter had heard Gambel Sparrows on the Berkeley campus on September 14, three days after their arrival at Davis, but Miss Thomson had recorded their return to her garden on Shafter Avenue in Oakland on September 8. Mr. Camp described the antics of a cormorant which visited his garden at Orinda. From its extraordinary behavior, the bird had evidently been a pet on shipboard.

The speaker of the evening, Dr. R. A. Stirton, presented "Observations on the Birds of Salvador," describing the work of his expedition which sailed from New Orleans for the Central American republic on November 6, 1941. After Mr. Stirton had discussed the physiography of the region and the relation between the life-zones, John Davis, another member of the expedition, continued with the story of the field work. The talks were illustrated with lantern slides, a number of them in color.

Adjourned.—Frances Carter, Recording Secretary.