

NOTES AND NEWS



Fig. 45. Josselyn Van Tyne, vice-president of the American Ornithologists' Union and editor of the *Wilson Bulletin* from 1939 to 1948.

The colored frontispiece of the Black-bellied Tree Duck (*Dendrocygna autumnalis*) is presented through the generosity of J. R. Pemberton. Readers of the *Condor* are greatly indebted to him.

The 1949 meeting of the American Ornithologists' Union will be held October 10 to 14 at Buffalo, New York.

The 10th International Ornithological Congress will be held at Uppsala, Sweden, June 10-17, 1950.

The report on the winter concentration of Band-tailed Pigeons in central California which follows was written by Mr. Ian I. McMillan. He is a wheat rancher in eastern San Luis Obispo County and has always been a resident of that area.

THE CONCENTRATION OF BAND-TAILED PIGEONS IN CENTRAL CALIFORNIA IN 1949

During January, February, and March of 1949, an unusually large concentration of Band-tailed Pigeons (*Columba fasciata*) occurred in different areas within a radius of 150 miles of Paso Robles, San Luis Obispo County, California. This area is in the upper Salinas River drainage of central coastal California.

Of a similar occurrence in the fall and winter of 1911-1912, Dawson ("The Birds of California," vol. 3, 1923:1155) wrote: "Immense numbers of Band-tailed Pigeons appeared in the interior valleys of Santa Barbara County, centering about the town of Los Olivos. It is probable that practically the entire summer population of California north of Tehachapi, Oregon, Washington, and British Columbia concentrated at this point What followed on this occasion was a humiliating example of what human cupidity, callousness, and ignorance, when unrestrained, will accomplish toward the destruction of birds. Reports of the birds' abundance spread rapidly Hunters from the outside flocked to the scene. Every gun was put into commission. By automobiles and trainloads they came. The country was a roar with gunfire Farmers urged in extenuation of this slaughter that the pigeons do damage to their grain fields. It is true, according to investigations carried out by Mr. Stanley G. Jewett in Tillamook County, Oregon, that the pigeons visit newly planted oat-fields and gather grains scattered upon the surface. Such grain, as Mr. Jewett points out would not mature anyway; and since the birds neither scratch nor delve, the damage done is immaterial. It is another case of hunting excuses."

Of the same 1911-1912 debacle, W. Lee Chambers (*Condor*, 14, 1912:108) wrote, "Band-tailed Pigeons were abundant this winter from Paso Robles south to Nordoff, all through the Coast Range of Mountains. One hunter from Los Olivos shipped over 2,000 birds to the San Francisco hotels. The morning train from San Luis Obispo to Los Olivos on Sundays averaged 100 passengers who came to hunt pigeons these hunters averaged about thirty birds apiece per day What can be done?"

Grinnell (Condor, 15, 1913:35) stated, "It is probable that an unusual concentration of the pigeons from the whole Pacific Coast region into a district easily reached by hunters gave exceptional opportunity for the infliction of the slaughter above recounted. The weak place in the pigeon's defense thus comes when conditions of restricted food supply force it into localities where its survival depends upon whether or not hunting is sanely regulated. Obviously, suitable legislation must be enacted at once, before chance of a repetition, even in lesser degree, is afforded."

For 20 years following the 1912 slaughter the Band-tailed Pigeon was given total protection as a game bird. In 1932 shooting seasons were resumed and in 1948 shooting of pigeons in central California was allowed from December 1 to 15. On the opening day a great many pigeons were found to be occupying a relatively small area west of Templeton, California, and for four days, according to reliable reports, "anyone could get their limit." On Sunday, December 5, one hundred cars were parked along one-half mile of narrow road in this area, and what was estimated to be four hundred hunters were occupying a small area adjacent to this road. Few birds remained by this time, however, and these few drew a continual bombardment as they remained high out of range. Pigeons remained scarce throughout the area for the remainder of the hunting season.

In January, 1949, coincidental with an unusually severe period of cold weather, pigeons in large numbers began appearing not only in their usual winter territory but in nearby areas where ordinarily they are seen rarely. Food was abundant in the form of waste grain that remained on the ground after the last season's harvest activities and also available was the small percentage of seed grain that ordinarily fails to get covered in the process of winter planting.

The pigeons' activities while obtaining this food, in addition to grain found in the crops of pigeons killed, was used as proof of damage and on this basis, the authorities in charge issued permission to shoot the birds. Permits were issued orally and in some cases by telephone to anyone claiming damage to their crops, and these permittees were also provided with permits to issue to outsiders to shoot on their property. What ensued was a repetition of the almost forgotten debacle of 1912.

The facts of what actually took place for two months following this first shooting are extreme-

ly hard to ascertain and for the most part unavailable as presentable evidence due to their incriminatory nature and the confidence in which they have been obtained. A great many birds shot by those who had permits were not reported and a great many birds are known to have been shot by hunters who had no permits. From the time this shooting started about the middle of January, as far as can be ascertained, there were no arrests for violation of laws protecting Band-tailed Pigeons in San Luis Obispo County, until February 20, when the first effort to establish law and order resulted in the arrest of 14 hunters all of whom had come a distance of 112 miles to shoot pigeons and who had no permits.

As further evidence of the amount of shooting, the area involved, and the attitude of the authorities in control, the following items are considered to provide an accurate description.

A report on the front page of *San Luis Obispo Telegram-Tribune*, February 7, 1949, among other things, stated the following: "A winged pestilence—in the form of thousands of wild pigeons—has descended on farmers in the upper Salinas Valley, . . . Farmers . . . have declared war on these robbers. The pigeons are fat as hens, and are said to be choice eating . . . Steady shooting on both sides of the highway was reported in the vicinity of Atascadero."

A headline article in the *Paso Robles Press*, issued February 22, 1949, included the following statements: "Typical of the ranchers most severely hit by the flocks of birds, Henry Jaster, of the Chimney Rock Ranch west of Paso Robles, said Saturday that he has had more than 300 acres of seeded grain ruined by the band tails . . ."

In the *Santa Barbara News Press*, about the middle of February, under the caption "Sportsman's Paradise" appeared, among other statements, the following: "Wild pigeons by the thousands early this week were continuing to flock to tender young grain fields in the Tri-Counties in an unseasonal migration which caused: A flood of requests for permission to shoot the birds in an effort to stop the damage . . . Game Warden R. E. Bedwell said that, although he has received many requests for federal permits to shoot the birds, after an examination of the situation in the fields he has wondered why he has not received many more such requests. 'When ranchers are as short of feed as they are this year I don't blame them for not wanting to lose it to birds,' he said. He said he had seen pigeons by the thousand

settle on grain fields and denude them of their tender young shoots."

As evidence of how the policy of managing this problem was established, the following statements in a letter from Orben Philbrick, game warden of the California state fish and game patrol, Paso Robles, are explanatory: "Shortly after I received the first complaints of damage, Game Management Agents, Hugh Worcester, and Harry Latimer, from the Berkeley Office, A. W. Elder, Game Management Agent from the Los Angeles Office, and Mr. Lostetter, Depredations Officer for the Fish and Wildlife Service, Berkeley, met at my home in Paso Robles, these gentlemen, accompanied by Captain Hecker, Warden Fullerton, and myself investigated thoroughly several areas where damage was being claimed, after said investigation it was their very decided opinion that there was sufficient damage, and the prospects of more, to warrant the issuing of permits to shoot the birds, and to further provide permits that the permittee's could issue to outsiders to shoot on their property. This procedure was favored, rather than an open season to the general public, and I believe a wise choice . . . Other members of the Patrol force, as well as myself, have in the past, as well as during this epidemic, made some very careful checks, on birds killed in various areas, which provide some interesting figures, by actual weight a pigeon will eat from $1\frac{1}{2}$ to 2 ounces of grain per day, so to keep well within the limit we will say 1 lb. of grain to 10 birds, per day. Now to take the Agents figures of 650,000 birds in the area, gives us a total of 65,000 lbs., or $32\frac{1}{2}$ tons of grain per day, which seems to me over a period of some 25 or 30 days, could reasonably be considered damage, to say nothing of the possibility, and from reports, a certainty that they are eating almond buds . . . As to Mr. Jewett, whom you cite as an authority, I can only say that of my own personal knowledge I do know that pigeons will pull out sprouted grain, and that they will dig it out with the bill."

It is a foregone conclusion that as a result of this management policy not less than 100,000 pigeons and probably a great many more have been killed. In addition to the previous news reports this conclusion is based on evidence such as the following facts: Shooting had prevailed for at least sixty days; for thirty days at the time this concentration was at its peak no control whatsoever was in evidence. On one ranch having only two hundred acres of grain, it had been ascertained that from ten to twenty hunters were

shooting every day for forty-five days or more; two of these hunters left after two days of shooting with two hundred pigeons; it is known that one hunter from a blind in the form of a fifty-gallon drum shot one hundred and thirty-five pigeons at one sitting; it is known that hunters came from most of the large cities within 250 miles to shoot; reliable reports of individuals shooting from seventy-five to one hundred pigeons in one day were common; local ammunition dealers reported a demand for shot-gun ammunition surpassing that during recent hunting seasons.

On March 31, 1949, the shooting permits expired. The crops involved in the damage claims were, at this time, well above the ground. As far as has been ascertained in a search for conclusive evidence, not one iota of damage to planted grain in eastern San Luis Obispo County has been found. This fact is further established by the following:

A letter from Mr. Thomas Chalmers, Agricultural Commissioner, County of San Luis Obispo, contains the following: "During the period of pigeon concentration in the Paso Robles District, this office received no requests for aid to this problem. Nor were we consulted by any agency to determine if, in our opinion, pigeons were actually destroying any crops, although one of the primary functions of this office is the control of pests . . . There are 200,000 acres planted to grain and hay in this county and a very large portion of this acreage is found in the district traversed by pigeons. Very soon after losses were being reported, I instructed the men of this office to observe the action of these birds and to appraise the loss being caused to these crops. The conclusion of our observation of the extent of damage is that it was confined to grain remaining upon the surface of the ground after planting operations had been completed. The removal of this grain from the surface of the ground will not affect the yield of these crops to a measurable degree. No acreage so far as we have been able to determine has been damaged so that replanting was necessary . . . The irony of this problem is that a delay was made by us in the start of the application of grain treated with 1080 poison in areas where the pigeons had concentrated. This work of controlling ground squirrels was delayed until tests and observations were completed as to the danger of this material to these birds. Our tests clearly proved that none of these birds would be killed. Although this care was being taken, a slaughter of pigeons was being permitted without the proof of serious damage."

Egmont Z. Rett, Curator of Ornithology and Mammalogy, Museum of Natural History, Santa Barbara, in a letter dated February 14, 1949, to the Director, State Department of Natural Resources, stated: "I would like to pass on to you a report of indiscriminate shooting of Band-tailed Pigeons in the Salinas Valley. It seems that permits have been issued without thorough investigation. The permits have evidently been given because of supposed damage to grain in the area north of Paso Robles. Pigeons are not scratching birds and therefore the only grain they are eating is that which has been spilled or otherwise not covered"

A preliminary report of pigeon damage survey, as delivered at a meeting of the Cholame Township Sportsmen's Association, February 24, 1949, by Fred Ross, Game Manager, Bureau of Game Conservation, California Division of Fish and Game, contained the following statements: "Papers by Jewett, Barnes, and Neff, have dealt with fruit damage, as well as alleged grain damage. This printed material was apparently overlooked in the hysteria which developed as the first pigeons hit the grain fields here Although my study has not yet progressed far enough for me to present you with seed counts and weights, I am prepared to state that out of a tow-sack full of grain taken from pigeons, only a small double-handful was found to be cleaned grain. I feel that this small percentage also represents waste grain, accidentally left uncovered in the planting process It is contended by some that the pigeons pull up the grain after it has sprouted. Hours of patient observations in the field have not yet disclosed any pigeon pulling up sprouts It is very true that some sprouted grains are found in the crops collected, but closer observation reveals the sprouts to be green all the way back to the seed, while sprouts which have come up through the ground are pale white from the seed to a point varying with the depth of planting. I also spent several days, in many fields, crawling and examining the ground minutely for holes or other disturbances which would indicate sprouts could have been pulled. I found no such evidence. To further investigate the matter, I sifted and counted all seeds from small plots in every field visited, some immediately behind the planters and some in areas supposedly ravaged by pigeons. I found no substantial difference in seed counts per foot, considering of course that some planters sow more pounds per acre than others. One plot, 10 ft. by 20 ft. was also covered with

netting immediately behind the planter to give it complete protection from the birds. The yield of this plot will be weighed against yield of a plot of equal size in a spot visited heavily by pigeons. This should give us some very useful information."

While it may seem incredible that the combined opinion of these and other qualified observers was given no consideration in the management of this problem, equally as incredible is the fact that the recorded findings of every recognized authority on the food habits and behavior of the Band-tailed Pigeon were also either ignored or overlooked. As has been previously brought out in this paper, government representatives participated and were in accord with the establishment of this policy of shooting to protect grain crops, it is therefore quite surprising and confusing to read in a government publication the following statements of Johnson A. Neff ("Habits, food, and economic status of the Band-tailed Pigeon," *North Amer. Fauna* 58, 1947:39):

"Munro (1924) reported on an investigation of band-tailed pigeon damage in British Columbia as follows: 'On June 9, 1923, I had occasion to investigate a report that band-tailed pigeons were causing damage to sprouted wheat About eight acres of the meadow had been seeded to wheat and oats by hand and as always is the case with this method of sowing, a large percentage of the seed was on the surface. This exposed seed had germinated Close observation with binoculars showed that only surface seed was being taken, the young plants from buried seed were not pulled up.'

"Mrs. Florence Merriam Bailey (1928) writes: 'On the west side of Moreno Valley, on July 4, 1919, Mr. S. E. Piper discovered that two or three thousand Pigeons had congregated along the borders of a deep cove. He was attracted to the place by heavy shooting on the part of the ranchmen—mainly foreigners who said that the birds destroyed their young grain, especially barley. On examining several areas from which the birds rose, Mr. Piper could find no indication that they were either digging or pulling the young grain; . . . It was evident that the hunters were seeking justification for shooting them'"

While evidence is plentiful that this needless killing was opposed by various organizations and individuals, there is little evidence that the authorities heeded this opposition. W. Andy Anderson, sports writer, in a column in the *San Luis*

Obispo Telegram-Tribune, wrote on February 23: "Protecting crops is one thing, and slaughtering game is another. The arrest of 14 illegal shooters in one day illustrates how easily the present pigeon situation could be changed into a slaughter. The fact that they were from as far away as Bakersfield adds more to the picture. Before this valley invasion some southern California gunners had their inning. The trouble is that those arrested represent only a small percentage of the hunters who have climbed on the 'save-the-grain' bandwagon. Someone bungled somewhere. When the news spreads throughout half the state in two weeks that there is an 'open season' on pigeons in this county—something's wrong."

The *Paso Robles Press*, March 1, 1949, contained in a front page news item the following: "Despite the explanation offered on behalf of both state and federal authorities with regard to the pigeon shooting permits issued in this area, the Cholame Township Sportsmen's Association has passed a resolution highly critical of the entire procedure. At their meeting Thursday night . . . the following resolution was proposed and adopted: 'The Cholame Township Sportsmen's Association is dissatisfied with the recent management of the pigeon situation in this area. We believe that the issuance of permits in the present setup has resulted in privileged shooting and that alleged damage to crops has been greatly exaggerated. We believe that the conclusions on which this management was based were hastily and ill arrived at. We therefore request an impartial and thorough investigation of the entire situation to clear up misunderstanding and in order to avoid similar excesses in the future.'"

At a meeting of sportsmen in Porterville, March 6, 1949, the authorized spokesman for the Cholame Township Sportsmen's Association stated:

"What is probably the entire population of Band-tailed Pigeons of the Pacific States and British Columbia has been for the past two months wintering in an area within 150 miles of Paso Robles, California. On what now appears to have been circumstantial evidence and erroneous conclusions these birds have been declared a pest and have been slaughtered by the thousands. Adverse weather conditions have forced these pigeons to seek food on stubble fields and planted grain fields where they glean only the waste grain that is on the surface and therefore of no material value. While thus struggling to survive in unfamiliar surroundings they are unusually vul-

nerable to gunfire and as far as law enforcement or government control was concerned they could have been exterminated right in our midst."

The futility of these public protests is proven by the fact that on March 31, 1949, after the planted grain fields were covered with an ordinary stand of new growth, Band-tailed Pigeons were still being shot through official permission in the Paso Robles area.

As to the advisability of allowing state authorities to liberalize the shooting of Band-tailed Pigeons, it should be realized that we in California must assume a major part in the conservation of this game bird. The following statements of Joseph Grinnell (*Condor*, 15, 1913:37) are as logical and sound today as when written 36 years ago:

"The Band-tailed Pigeon has been reported in greater or less numbers from widely separated localities, from the Rocky Mountains to the Pacific, and from British Columbia to Mexico. Yet the evidence at hand leads to the belief that all those birds breeding within the Pacific Coast region from Vancouver Island south to the Mexican line, concentrate during the winter season in the valley and foothill sections of west-central and southern California. It becomes clearly apparent, therefore, that California holds the key to the future of the species as far as the Pacific slope is concerned.

"Because the pigeon is broadly scattered throughout the forests and mountains of the whole Pacific district during the summer, it is not at that season particularly liable to decimation. But it is during the winter, when the birds are forced by uneven food supply into small areas in central and southern California, that there is a chance for almost unlimited destruction by hunters, such as occurred in the late winter of 1911-12."

It is natural that a concentration of pigeons such as occurred in 1949 should establish in the minds of a great many people the assumption that the wild pigeon population had greatly increased. The birds' vagrant wanderings over areas where they are not commonly seen, their long spectacular flights from roosting territory to feeding grounds, their gregarious feeding activities in large conspicuous flocks and sporadic concentrations at different times and places, and the general interest and publicity they aroused in connection with hunting, palatability, and crop damage all contributed to the illusion that there were "millions of pigeons." It was noted that these flocks used a particular feeding ground for lim-

ited time only and where seen in great numbers one week would be almost totally absent a week later, while a concentration would appear in another area where previously few birds were observed.

It was ascertained that the large flocks of pigeons that fed on the stubble fields ten miles east of Shandon arrived from a westerly direction in the morning and disappeared in the late afternoon toward the same direction. It is quite probable that these birds returned to roost in the live oaks 40 miles to the west and in that long flight established the popular but erroneous impression that "pigeons were everywhere."

It is also very probable that these same flocks, as they later moved north in migration to their summer range, were responsible for the succession of reports of "millions of pigeons" along their migration route.

Furthermore it should be borne in mind that Band-tailed Pigeons normally raise but one young a year. This factor, together with normal mortality and the numbers shot each season, would prohibit any sudden eruption in the population.

In consideration of the above-mentioned factors and the tremendous increase in hunting pressure during recent years throughout this species' range in the Pacific states, and, furthermore, in view of the great numbers known to have been shot during the past hunting season, until accurate and reliable research presents conclusive proof of excessive numbers, any move to liberalize the shooting of Band-tailed Pigeons should be opposed by all who would wisely manage our wildlife resources.

While the many weaknesses that were brought to light in this emergency should all if possible be eliminated, it was evident that the palatability and food value of the wild pigeons together with the fact that they could be used for food by anyone, were the responsible factors for the almost universal participation in this slaughter. In view of this, the following paragraph contained in the official publication of the Fish and Wildlife Service cited above, "Habits, food, and economic status of the Band-tailed Pigeon" (p. 50), is of particular importance:

"The issuance of permits to kill pigeons that that are damaging crops has never been completely successful. Earlier authorization allowed the owner or lessee to use the birds so killed for food, and as a result a great demand for permits developed, the desire to hunt being the primary motive. Hence permits no longer include the privi-

lege of utilizing the birds killed as food, and significantly there has been a great decrease in the number of complaints. During recent seasons it has been possible in some areas through agreement between Federal and State officials to require the permittee to preserve the pigeons killed for delivery to charitable institutions or hospitals. This has effected further decrease in the number of requests for permits."



Fig. 46. A grain field in San Luis Obispo County, June, 1949. In February, this field, then recently seeded, was visited by tremendous numbers of Band-tailed Pigeons. The stand of wheat in June indicates no damage by these birds.

It is a foregone conclusion that had this requirement been in effect during the 1949 problem, only a negligible amount of shooting would have been done. Why it was not applied has not been ascertained. It should immediately be reestablished, and under no conditions should Band-tailed Pigeons be used as food except by charitable institutions or hospitals, or after being taken legally during the open season.

The fact has definitely been established that on areas allegedly devastated, normal stands of grain have materialized (fig. 46). Band-tailed Pigeons take only grain that is on the surface and do not pull out sprouted seed that has been properly covered. Permits to kill them in protection of recently planted grain crops should not be issued.

In emergencies such as arose during this concentration, it is of particular importance that all available facilities and resources that have been provided to manage such situations be put to use. It is firmly believed that had the capacities of local agencies cited above been applied to this case, apprehension and hysteria that developed as a result of erroneous information would have

been prevented. It is therefore recommended that close cooperation be established between these agencies and those in charge of wildlife conservation.

It is a recognized fact that pressure of privilege-seeking individuals and groups, as well as the obligations and prejudices that may develop through long established social and commercial relationships, have a degrading influence on the administration of game laws. In order that those responsible for this administration may more ably withstand this pressure and influence, it would seem advisable to establish a program in which game wardens would not remain in charge of a particular area indefinitely.

Public opinion more than any other factor influences conservation. It has been noted in this investigation that when aware of the facts, the public is opposed to wasteful killing of wildlife. In view of misleading public information and refusal of officials to issue requested information pertinent to this case, it is recommended that factual and straight-forward replies to sincere requests for information be made mandatory and that any policy to hide in secrecy the issuing of special permits to kill game be abolished and information regarding these permits be made available to the public.

In conclusion it may be stated that what happened to the Band-tailed Pigeons in central California during 1949 was ample proof that only by careful management can this game bird survive long. Rules and regulations in themselves, as was proven in this case, are worth little as guarantee against such debacles. The only real assurance that such affairs will not be repeated is a firm and abiding realization on the part of those in charge of the conservation of our wildlife that such mismanagement will not be tolerated. On the date of this writing, June 25, 1949, the fields of grain and orchards laden with almonds stand in mute but final evidence of a colossal mistake.—IAN I. McMILLAN.

COOPER CLUB MEETINGS

NORTHERN DIVISION

MAY.—The regular meeting of the Northern Division of the Cooper Ornithological Club was held on Thursday, May 26, 1949, at the University of California, Berkeley. The following proposals for membership were read: Mrs. Sarah E. Banning, 1810 Arch St., Berkeley 9, Calif., by Junea W. Kelly; Mrs. Lawrence T. Burgh, 305 Marion Apts., 1263 Oak St., Eugene, Ore., by

Gordon W. Gullion; Richard C. Harder, Box 136, Baldwin, Kan., by Chas. G. Sibley; Robert H. Jamieson, 761 West St., Reno, Nev., by Frank Richardson; Mrs. Milton S. Ray, 609 Arballo Drive, San Francisco 27, Calif., and Mayard Whitney Read, Upper Dogwood Lane, Rye, N. Y., by Alden H. Miller; Herbert Wong, 135 8th St., Oakland 7, Calif., by H. E. Childs, Jr.

Dr. Carlton M. Herman, of the California Division of Fish and Game, spoke on the "Current Status of our Knowledge of Disease in California Quail."—HOWARD L. COGSWELL, *Secretary*.

SOUTHERN DIVISION

MAY.—The regular monthly meeting of the Southern Division of the Cooper Ornithological Club was held May 31, 1949, at the University of Southern California, Los Angeles. The following names were proposed for membership: John J. Cleary, 2806 Glen Ave., Altadena, Calif., by Mary M. Erickson; Mrs. Constance S. Friesen, 1334 N. Euclid Ave., Upland, Calif., by Junea W. Kelly; J. E. Piercy, Denman Island, B.C., Canada, and Winifred S. Sabine, Deep Springs, Calif., by W. Lee Chambers; Richard M. Ritland, Dept. of Biology, Atlantic Union College, South Lancaster, Mass., by John McB. Robertson; Grant K. Roth, 5445 Hillcrest Dr., Los Angeles 43, Calif., by A. H. Miller; Dorothy E. Sheffler, 4731 Angeles Vista Blvd., Los Angeles 43, Calif., by E. N. Harrison; Arnold Small, 1840 W. 11 Pl., Los Angeles 6, Calif., by K. E. Stager; Mrs. S. E. van Zandt, 1405 Grant St., Berkeley 3, Calif., by Edna Elden Williams; Cynthia Ainsworth, 244 St. Albans St., South Pasadena, Calif., Clowes M. Christie, 4719 Angeles Vista Blvd., Los Angeles 43, Calif., and Gerald B. Thomas, 5519 Ruthelen, Los Angeles 37, Calif., by W. J. Sheffler; Mrs. Ruth W. Cox, 418 S. Holt, Los Angeles 36, Calif., Charles W. Hamilton, 2304 Goldsmith, Houston 5, Texas, Eliza Mabel Kelley, 71 Division St., Newport, Rhode Island, S. Paul Lindau, 108 N. Harvard Blvd., Los Angeles 4, Calif., Miss Mildred McElroy, 404 Gladstone Blvd., Shreveport, La., Charles R. Shaw, Rt. 1, Fairfield Apts., Minden, La., Mrs. Paul M. Sullivan, 5281 Woodlake Ave., Woodland Hills, Calif., and David H. Thomson, Calif. State Polytechnic College, San Luis Obispo, Calif., all by C. V. Duff.

V. D. Hale of Ducks Unlimited showed two colored sound-films depicting some of the Canadian marsh areas and one in Arkansas where much of their conservation work is being done.—DOROTHY E. GRONER, *Secretary*.