

REPORT OF THE A. O. U. COMMITTEE ON BIRD
PROTECTION, 1949

IN reviewing the progress or lack of progress in bird protection during 1949, it is obvious that several major events have occurred.

Duck Stamp Amendment.—Perhaps the outstanding single favorable occurrence has been the amendment of the Duck Stamp Act., increasing the price of stamps to two dollars. This will permit resumption of refuge development and should help fill the serious gaps that still exist in the refuge system. The amendment also provides for eventual development of limited portions of newly acquired lands as public hunting areas and should help acquire refuges in areas in which it has been difficult. Safeguards written into the bill outline conditions under which lands may be opened to shooting and appear adequate to protect this provision from abuse.

Public Opposition to Development Projects.—A second encouraging development is the growing opposition to legislative proposals which purport to extend economic development by sacrificing important natural resources. Opposition to ill-planned impoundments, drainage ventures, and oil and gas exploitation schemes was in several instances successful in stopping the proposed projects or in securing modification of preliminary plans to insure protection of wildlife and natural resources.

The withdrawal of the Glacier View Dam which would have flooded part of Glacier Park and the abandonment of the Kanab Creek diversion which would have adversely affected Grand Canyon National Park are examples of such success. On the other hand, conservation forces lost one round of the battle to preserve 11,000 acres of marsh just north of the U. S.-Canadian boundary, when the International Joint Commission approved a reclamation scheme. The battle will be continued in British Columbia.

Public Support for Wildlife Research.—An additional indication of public demand for more fundamental information to help safeguard its resources was manifest in expansion of the Cooperative Wildlife Research Unit program sponsored jointly by the state college or university, the state conservation department, the Fish and Wildlife Service, and the Wildlife Management Institute.

As of March, 1949, Units were operating at 14 land-grant colleges in Alabama, Colorado, Idaho, Iowa, Maine, Massachusetts, Missouri, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Utah, and Virginia. The Colorado, Idaho, Massachusetts, and Oklahoma Units have been established since 1947, while the first ten units have been in existence

since 1935-1936. Legislative appropriations sponsored by state conservation departments and colleges for the establishment of three of five new units in Arizona, Montana, North Carolina, New York, and Alaska were approved.

Numerous outstanding accomplishments have been achieved by the Units. Probably the most significant value is that the program provided trained men to fill important wildlife positions created by the Federal Aid in Wildlife Restoration (Pittman-Robertson) Act of 1937. By the end of the 1947-48 school year, "Unit Graduates" numbered 773. Unit findings have been applied by the state game departments in conducting game censuses, establishing and modifying game laws, selecting and creating game refuges, and in developing habitat improvement projects.

Migratory Birds.—The continued improvement in the machinery for estimating current populations of migratory game birds is worthy of comment. The Fish and Wildlife Service, the Dominion Wildlife Service, the state game departments of several north-central states, and the game branches of the provincial governments in the prairie provinces are all cooperating closely. By the use of airplane census strips, as well as by censusing from automobiles and canoes, the coverage has been increased to assure reasonable accuracy in population estimates during the breeding season, so that hunting regulations can be based upon a more accurate and up-to-date population survey.

An additional development has been an intensive investigation into waterfowl problems of eastern Canada, an area long neglected in this respect. The investigation is supported by the Wildlife Management Institute with the cooperation of other agencies, and the Black Duck, *Anas rubripes*, has been the main problem of investigation. The same species has been the object of investigation in the northeastern states by the Joint Black Duck Committee which represents the game departments of several of the states, together with the Fish and Wildlife Service, Ducks Unlimited, and the Wildlife Management Institute. An important contribution to waterfowl conservation has been made by the publication by the Wildlife Management Institute of a bulletin entitled 'Waterfowl Management on Small Areas.' This publication places in simple and specific terms the measures which it is feasible for both individuals and public agencies to accomplish in the interests of waterfowl restoration, particularly in the heavily populated northeastern states.

Following the joint program in the northeastern states, the state, federal, and private agencies have formed committees in each major waterfowl flyway composed of research men and field staff members.

These committees are developing uniform methods of censusing, of recording hunters' take, crippling losses, etc., in order that all available data will be directly comparable.

Similar cooperative projects have been developed between agencies dealing with Mourning Doves, *Zenaidura macroura*, and to a less extent with Woodcock, *Philohela minor*. In the case of the latter species, additional observers are needed to secure a more adequate sampling throughout the breeding area. Assistance from any A. O. U. members in a position to conduct Woodcock censuses each spring on permanent, selected census routes is needed and would be very welcome.

The annual winter inventory of migratory waterfowl revealed some increase in the continent's duck and goose populations, although a heavy decline in the Coot population kept the 1949 waterfowl at about the same level as in 1948. Improved breeding-ground conditions, together with stringent hunting regulations and the continued development of wildlife refuges, were considered chiefly responsible. The winter inventory conducted in mid-January from Alaska to Guatemala included the larger West Indies Islands for the second season. About 1300 trained observers using planes, automobiles, and boats participated. In addition to the Fish and Wildlife Service and state conservation department personnel, pilots of the armed forces, and Canadian and Mexican specialists took part. Trends disclosed a 39 per cent increase in the Brant population, a 20 per cent increase in Swans, but a 56 per cent decrease in Coots. Ducks comprised about 75 per cent of the waterfowl noted; Coots, *Fulica americana*, 12 per cent; Geese 10 per cent; Brant less than one per cent; and Swans less than one per cent. Sixty-one per cent of the waterfowl were seen on wintering grounds in the United States; 27 per cent in Central America and Mexico; four per cent in Canada; and less than one per cent in the West Indies. The most significant trends revealed were increases in: Snow Geese, *Chen hyperborea*; Scaup, *Aythya marila* and *A. affinis*; Black Duck, and Mallard, *Anas platyrhynchos*; Scoter, *Melanitta* sp.; and Eider, *Somateria* all forms, populations; and decreases in Shovellers, *Spatula*, and Mergansers, *Mergus* species.

The 1949 migratory waterfowl hunting regulations were liberalized to allow an additional ten days' shooting in each flyway. While drought conditions adversely affect important sections of the breeding grounds in the short-grass prairie regions of Saskatchewan and Alberta, water conditions were favorable throughout the remainder of Canada, northern United States, and Alaska.

Much criticism has been voiced over the slaughter of Band-tailed Pigeons, *Columba fasciata*, for alleged damage to crops in certain con-

centration areas in California. A careful check indicates that much of the criticism was justified. Shooting permits were rather freely issued to complaining ranchers, and blanket permits to allow ranchers to let others shoot brought undoubted abuses. Doubt as to the extent of actual damage has been expressed, and there is little question that the conclusions as to the nature and extent of damage were not based on adequate investigations. The system of handling such cases has been overhauled and some obvious weaknesses eliminated.

Habitat Improvement.—The expansion of efforts by state conservation departments to preserve and restore habitats for both upland game and waterfowl is another encouraging development. Practically every state is now devoting some funds to this effort and 33 are making it a major project with Federal Aid funds. While planned primarily for game species, the planting of thickets, hedges, wood lots, strip crops of permanent nature, and the development of farm ponds also provide additional habitat for many other forms of wildlife, including the majority of the birds normally found in the area.

Introduced Species.—The drastic widespread decline in pheasant populations, plus success of the Chukar Partridge, *Alectoris*, in establishing itself in Nevada and other western states, has stimulated interest in the introduction of additional exotic game birds. Most biologists, aware of the often disastrous results of successful efforts, question such activities. Efforts are being made to channel all introductions through the Fish and Wildlife Service and secure careful advance information before attempts are made. Dr. Gardiner Bump has been employed as coordinator of this work and this summer has been in Scandinavia studying Black Cock and other game species. If the program outlined is followed carefully, there should be fewer promiscuous introductions, and those that are made should be more intelligently planned.

Research Programs.—In addition to those previously mentioned, a number of research studies of interest are underway. An outbreak of botulism on the Tule Lake-Lower Klamath National Wildlife Refuges on the California-Oregon line resulted in a loss of 65,000 ducks in 1948. Similar outbreaks in 1949 in Manitoba and Alberta emphasize the seriousness of this disease in waterfowl management. Experiments in botulism control have been carried on at the Bear River Migratory Bird Refuge, Utah, for many years and the terrific loss which formerly occurred on those marshes has been drastically reduced. These studies need to include additional localities to determine the applicability of present techniques for prevention and treatment of botulism and to develop additional methods of controlling this disease.

Outbreaks of other diseases among the waterfowl offer challenges to research students. An epidemic of fowl cholera occurred again in the Texas panhandle. First observed in the region in 1940, these outbreaks have since occurred each winter. The outbreak in 1948-49, with the loss of at least 2,500 birds, was the most serious so far recorded. On the coast of North Carolina, about 750 Canada Geese, *Branta canadensis*, died from a disease believed at first to have been caused by a blood parasite, *Leucocytozoon*, but later determined by an Agriculture Department parasitologist as probably caused by gizzard worms.

Studies conducted by the Illinois Natural History Survey Field Laboratory at Havana, Illinois, are planned to determine the extent of lead poisoning as a factor in waterfowl loss. More than 500 ducks, domestic and wild, principally Mallards, have been under observation in the experiment. The object is to find ways of reducing losses from lead poisoning contracted by wild ducks which in their feeding pick up lead pellets in heavily shot areas.

Rare Species.—Information on the status of rare species continues to be spotty. Changes in conditions over the past year known to the Committee are as follows:

There are no positive records of the Ivory-billed Woodpecker, *Campephilus principalis*, in 1949. Lumbermen engaged in removing the last marketable timber from the Singer Tract reported two in October, 1948. Attempts to verify this report were prevented by high water that made travel in this section of the tract impossible. However, two were seen in Florida on March 3, 1950, by members of an expedition headed by Whitney H. Eastman.

The exact number of surviving Everglade Kites, *Rostrhamus s. plumbeus*, is unknown, but available information is not encouraging. Consideration should be given to the impact on kite habitat of the Water Conservation and Flood Control Plan now being set up in Florida by the Army Engineers. Construction of levees, spillways, and other water control devices are contemplated for the Kissimmee River and Upper St. Johns where these birds may be making a last stand. *Study of the problem is needed.*

The establishment of Everglades National Park should help the Short-tailed Hawk, *Buteo brachyurus*, on the mainland where a few pairs have been seen in recent years. On Key Largo, outside the Park, the post-war land clearing and real estate development threatens to destroy the nesting habitat of the Short-tail and the feeding habitat of the White-crowned Pigeon, *Columba leucocephala*, particularly wild

fig and poison wood trees, the berries of which are important food sources for this pigeon.

There has been no obvious increase of Reddish Egrets, *Dichromanassa rufescens*, over a limited range in Florida Bay. These birds are not disturbed and should increase in numbers. It would be helpful to know something of their present status in the Bahamas and West Indies.

During the waterfowl surveys last winter, Harold Peters of the Fish and Wildlife Service counted 6,700 Flamingos, *Phoenicopterus ruber*, in Cuba, Dominican Republic, and the Bahamas. This past spring and summer a survey was conducted under the sponsorship of the Bahamas Government. Dr. Paul Zahl and his associates found the Andros colony abandoned following raids by natives in 1946, 1947, and again in 1948. Some 3,000 birds were found on Inagua where young are being reared, although further commercial developments may in time threaten this group. It is not known if other nesting colonies are present in Cuba or the Dominican Republic. Results obtained at Hialeah suggest that application of the same management techniques would lead to the self-establishment of the species in almost any selected location, including Florida Bay sites.

On the somewhat more cheerful side, the California Condor, *Gymnogyps californianus*, seems to be holding its own. The recent establishment by the U. S. Forest Service of an area in Santa Barbara County from which nearly all human use is excluded should help this bird.

Recent Whooping Crane, *Grus americana*, population figures show improvement, but the total is still dangerously low. The first reliable population estimates were obtained in 1938-39 when there were 18 birds in Texas, 13 in Louisiana, and two captive (total of 33). In the 10-year period that followed, the trend was downward at first but has since picked up. Losses in both Louisiana and Texas flocks dropped totals to five in Louisiana and 15 in Texas (or 22 birds including the two captives) in 1941-42.

The Louisiana flock reduced to one bird was eliminated by the removal of this individual to the Aransas Refuge. In Texas, where most of the surviving birds winter on the Aransas Wildlife Refuge, there has been a slow increase. The Texas population was 30 wild birds and two captives at last count. Thus, at present, the actual gain is averaged at 1.2 birds per year. It is believed that increased protection on the wintering grounds and favorable results from widespread publicity along the migration route are responsible for the present trend. The next few years will tell the story. Attempts have been

made to breed captive birds in a large enclosure in Texas but the initial clutch proved to be infertile. Another pairing is now being encouraged with a different male bird and the experiment will continue. The Canadian nesting grounds have not been located and appear for the present to be completely isolated and presumably safe. However, survival of the species depends entirely on annual production of young (10-year average was 4.5 young annually), and their safe conduct to the Texas wintering ground.

Both the Roseate Spoonbill, *Ajaja ajaja*, and the Great White Heron, *Ardea occidentalis*, show marked increases in Florida. The Spoonbill has responded so well to protection and the changed public attitude that the one Florida Bay colony of a decade ago is now multiplied by ten. Great Whites are probably at a new high in total numbers, a figure close to or exceeding 1,000 individuals. For the first time in recent years, Spoonbills are now fairly common in summer in Florida Bay and along the Keys. Fishing guides and others have learned to point them out as one of the local attractions instead of shooting them. The "No Firearms" regulation for the National Wildlife Refuge in Florida Bay is a big help.

The Trumpeter Swan, *Cygnus buccinator*, population within the United States continued to show a satisfactory increase during 1949. A total of 103 cygnets was raised, a number exceeded only in 1948, when 106 were counted. Twenty-three of these cygnets were produced within Yellowstone National Park, while 80 were hatched on the Red Rock Lakes Migratory Waterfowl Refuge or surrounding lakes and reservoirs. An August, 1949, count revealed 451. It has been estimated that at least 900 Trumpeters are in Alberta, British Columbia, and southeastern Alaska.

A rather severe loss of these swans occurred in connection with the attempted establishment of separate breeding populations on the 175,000 acre Malheur National Wildlife Refuge in southeastern Oregon and, subsequently, on the 35,000 acre Ruby Lake National Wildlife Refuge in eastern Nevada. During the year, 12 birds died from undetermined causes. Specimens, both alive and dead, were examined by a biologist from Oregon State College without detecting symptoms of any of the usual wildfowl diseases. These investigations are continuing.

The 1949 Perry River expedition with Harold C. Hanson and Peter Scott as ornithologists found only one colony of Ross's Geese, *Chen rossii*. Two hundred and sixty nests were counted on five islands, and no breeding occurred on the lakes where they were previously found by Angus Gavin. Ross's Geese were found molting but not nesting in

other nearby areas, but the group concluded that "there are indications therefore that the world stock of Ross's Geese in June 1949 may have been under 2000 birds."

As an added bit of interesting information, Peter Scott and Refuge Manager Vernon Ekdahl counted 460 of these birds on the Sacramento National Wildlife Refuge on November 9, 1948. A later count in January, 1949, revealed that approximately 1400 Ross's Geese were wintering at the Refuge. This is the largest count of Ross's Geese since the Refuge was established.

General Conditions.—Conditions for bird life during the past year were generally favorable, although Nebraska, parts of the Dakotas, Idaho, Wyoming, Utah, and Nevada received some of the heaviest snows and the most prolonged blizzard conditions in many years. Reported wildlife losses were not severe except on Pheasants through the Dakotas and scattered deer and antelope herds; human beings and livestock seemingly suffered most during the severe winter.

Attention has been called to the serious decline of birds of prey in the great plains, apparently due to promiscuous shooting by hunters and also to the reduced status of the Duck Hawk, *Falco peregrinus*, in several localities. Obviously more intensive educational work is needed to meet these problems.

During the summer of 1949, drought conditions prevailed over some of the western states with numerous outbreaks of fire.

Congressional action in eliminating appropriations for use by the Forest Service in wildlife management has curtailed important work on forest areas, particularly in the West. These forest areas shelter over 25 per cent of the nation's big game animals and the benefits to bird life are undoubtedly equally important.

Agricultural Sprays.—Attention should be called to developments in agricultural sprays which may produce serious effects on bird life. The use of DDT as an insect destroyer has continued on an ever-increasing scale. A number of limited studies have been made on its effect but no one can state accurately the harm which may result to birds and other wildlife from over-use.

In March, 1949, the National Audubon Society issued a press release which cautioned against the indiscriminate use of insecticides:

"Far too little attention has been paid to repeated warnings by the U. S. Fish and Wildlife Service and the Department of Agriculture on the danger of employing certain new insecticides in heavy concentration in outdoor areas. With the expanding use of such poisons, increasingly serious damage can be expected unless great care is taken in dusting and spraying. These new insecticides include DDT, DDD, TEPP, and Chlorinated camphene.

"These toxic agents in heavy applications not only kill birds and fish, but lead to heavy destruction of bees and other insects valued by farmers and fruit-growers. Land fertility may also be affected. It concerns human welfare as well as wildlife.

"Surveys and experiments conducted by the U. S. Fish and Wildlife Service have demonstrated in what concentrations DDT may safely be used. Other organics have not yet been fully tested. Some of them are more deadly than DDT to warm-blooded animals. Wildlife mortality has been cited by scores of observers after checking the results of local insecticide spraying and dusting. Such evidence confirms the hazards of drenching outdoor areas with the new insecticides."

The development of 2-4,D and other potent weed killers and general herbicides poses a threat to bird life which may be even greater than that caused by over-use of insecticides. Such sprays can be used to destroy much of the vegetation which affords food and cover for many forms of wildlife. For example, airplane spraying has been started in western Oklahoma to destroy the oak shinnery, last-stand habitat of the Lesser Prairie Chicken, *Tympanuchus pallidicinctus*. The New Mexico Game Department has bought thousands of acres of similar land and carried on a fine job of habitat restoration for the benefit of this same bird.

Oklahoma cattle ranchers are, with the encouragement of agricultural agencies, attempting to destroy existing habitat in the hope that it will be replaced by grass. Much of this land is light, sandy loam which is much more apt to develop into active dunes and blow-holes than pasture lands, if the existing vegetation is removed.

These herbicides are also being used against such plant pests as water hyacinth and alligator weed with more success than other controls; so there may be a beneficial as well as an injurious aspect to this development.

The uncontrolled use of both types of sprays may develop into serious local threats to bird life and should be carefully watched by all those interested in birds.

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