REPORT OF COMMITTEE ON CONSERVATION, 1967

WILDLIFE conservation received a significant boost in 1965 with an emergency appropriation of $350,000 by Congress to support rare and endangered wildlife research and related activities. This trend was continued with additional funds in 1966 and with the passage of Public Law 89-669. The purposes of this Act are to "provide a program for the conservation, protection, restoration, and propagation of selected species of native fish and wildlife, including migratory birds that are threatened with extinction and to consolidate, re-state, and modify the present authorities related to administration by the Secretary of Interior of the National Wildlife Refuge System." With this impetus many developments have taken place within the U. S. Bureau of Sport Fisheries and Wildlife. The Patuxent Wildlife Research Center in Maryland is the heart of the endangered wildlife research program which now has a staff of 19 headed by our committee member Ray Erickson. Six are biologists in the Section of Ecology assigned to research on population, distribution, and ecology of endangered species in Hawaii, California, Arizona, South Dakota, and Florida.

The Bureau issued *Rare and endangered fish and wildlife of the United States* as Resource Publication 34 in July 1966. This "Red Book," as it is called, lists 50 bird species as rare and endangered, 22 of them Hawaiian forms. It also lists another 60 birds as "peripheral" and 51 as "status-undetermined." The book was prepared in loose-leaf form so that replacements can be inserted as needed. The Bureau hopes that ornithologists will continue to contribute current information on the species it lists. Highlights on some of the endangered species follow:

Newell's Manx Shearwater.—Bureau Biologist John Sincock and Hawaii Fish and Game Biologist Gerald Swedberg discovered the first known nesting grounds of this species in the mountains of Kauai, Hawaii during the summer of 1967.

Hawaiian Dark-rumped Petrel.—Predator control measures were intensified in the crater of Haleakala National Park where this species is known to breed.

Aleutian Canada Goose.—This goose has been bred in captivity for the first time; 23 young were raised successfully in 1967. Eradication of arctic foxes and rats on Agattu, Kiska, and Amchitka Islands in the Aleutian Islands National Wildlife Refuge was continued to prepare these areas for the release of captive-reared goslings.

Hawaiian Duck.—Avian botulism was believed to be the cause of mortality of some 33 Koloa and 3 Hawaiian Gallinules at a sugar plantation settling basin on Kauai during December 1966 and January 1967. The Hawaiian Department of Lands and Natural Resources is preparing a report on its special ecological study of the Koloa.

California Condor.—The third annual (October 1967) count of California Condors totalled 46 as the minimum number seen, compared to the 51 reported in the second annual count in 1966. Both counts represent considerably more Condors than the 38 birds tallied in October 1965. These censuses, organized as a cooperative venture by the California Department of Fish and Game, The National Audubon Society, and the U. S. Departments of Agriculture and Interior, involved up to 100 observers at over

50 selected viewing stations. The results were scanned to eliminate duplication of birds, and the figure arrived at is viewed as a reliable index of the total population.

This index, made by a different and more thorough method than the National Audubon Society achieved in its population estimates (1953 and 1965), in no way invalidates the latter's estimate of population decline, but it does indicate that the total population is somewhat larger than appeared from the earlier studies.

The Bureau's Endangered Wildlife Research Station now has a biologist studying the Condor, stressing its reactions to disturbances of various kinds, with particular reference to the effects on the Condors of potential reservoir construction and human recreational use. The National Audubon Society also has a fulltime staff man with the Condors. Three active nests, each containing one fledgling, were located in 1967.

Everglade Kite.—Surveys in October and November 1967 by Paul W. Sykes, Jr. showed at least 47 kites present in three refuge areas in southern Florida. At Patuxent additional information is being obtained on this species in captivity from 19 South American Snail Kites, a close relative of the Everglade Kite.

Bald Eagle.—The decline of Bald Eagles continues, especially on the Great Lakes, Atlantic, and Gulf coasts of the United States, according to a November 1966 report authored by Alexander Sprunt IV and Frank J. Ligas of the National Audubon Society. Of special concern is the continuing decrease in the percentage of immatures in the population. Additional remarks on eagles follow under "Raptors."

Masked Bobwhite.—Five Masked Bobwhites were hatched and reared in 1966 from four pairs provided the Bureau by James and Seymour Levy of Arizona. More than 40 were produced in 1967. Of particular interest was the observation of three dozen breeding adults, predominantly males on territory, by Roy Tomlinson.

Whooping Crane.—A total of 38 adults and 9 young returned from Canada to the Aransas National Wildlife Refuge by November 1967. This total of 47 exceeds the 43 tallied in 1966. Equally encouraging news is the successful rearing from the eggs of four young Whooping Cranes at Patuxent Refuge during 1967. Also the Patuxent population was increased by one young hatched at the San Antonio zoo. From this nucleus, it is hoped a captive breeding population can be established from which the low population may be replenished in the wild. The Canadian Wildlife Service has published a fine report on the nesting population dynamics of this species.

Puerto Rican Parrot.—A study of the status of this parrot, whose total numbers probably do not exceed 200, is being continued by Victor Marquez of the Puerto Rican Department of Fisheries and Wildlife.

Ivory-billed Woodpecker.—The late August announcement by the Secretary of Interior that this "perhaps extinct" species was indeed alive in the Big Thicket country of east Texas thrilled all those interested in America's birdlife. It is hoped that details will be available for the next Committee report.

Honey Creepers and other endangered birds of Hawaii.—Interior Secretary Udall's office reported in December 1967 the surprising news of the sighting in Maui's Kipahulu Valley of the Maui Nukupuu (*Hemignathus lucidus affinis*), last seen alive in 1897 and thought extinct. Current projects include the development of status and distribution evaluation methods for forest-dwelling Hawaiian birds. Biologist Winston Banko has assembled at least 90 per cent of the published and unpublished literature on Hawaiian endemic species, which will prove most useful in future researches.

Migratory Birds

Waterfowl.—The 1966–67 federal waterfowl regulations were set in hopes they would produce a population increase of about 20 per cent instead of the 6 per cent

actually realized. Mallards and Pintails have increased, but the Blue-Winged Teal and Canvasback have declined. June conditions on the continent's principal nesting areas were somewhat improved over 1966, but extensive areas of late summer drought predicated fewer young for the 1967 fall flight.

The regulatory agencies of the United States and Canada try to send more waterfowl back to the breeding grounds in wet years, keeping only a minimum population during dry years. This, perhaps, will result in higher harvest in the long run. There is much encouragement in the recent progress the Bureau has made to conduct more basic research on all migratory species, and not just with the key harvest species, the Mallard and Pintail, as in the past. The endangered species efforts, as well as work with the Fulvous Tree Duck and Blue-winged Teal, are good examples of a trend which it is hoped will continue.

Other water birds.—There will be no harvest season in 1967 on the larger rails in most interior states, and rail harvest will be reduced in a few Atlantic states. The woodcock season has been extended by 15 days for 1967. Brown Pelicans seem to have all but disappeared as breeding birds on the Gulf and Atlantic Coast of the United States except in peninsular Florida where a study is underway by Florida's commission. The habitats of Wood Storks and associated wading birds in south Florida continue to be threatened by massive drainage and land development schemes in Collier County. Oyster-shell dredging along the entire Texas coast, especially in Galveston Bay, is having its detrimental effects on breeding colonies of spoonbills, herons, egrets, and cormorants.

Doves and pigeons.—Mourning Dove and Band-tailed Pigeon populations and harvest regulations remain essentially as for 1966. Increased acreage in grain production in northern Mexico has resulted in heavy over-harvesting of White-winged Doves. The 1967–68 season in Texas will be reduced from six half-days to four. Recent cooperative research efforts will benefit these birds in the future.

Ipswich Sparrow.—The Canadian Wildlife Service is supporting a study of the breeding ecology of the Ipswich Sparrow on Sable Island. Interest in the oil resources of Sable Island and adjacent offshore banks makes it important to learn what sort of environmental modification might have some effect on populations of this rare species. The oil company concerned is cooperating fully.

Songbirds.—In 1965, the Bureau experimented with 50 songbird census routes in Maryland and 10 in Delaware. This program was expanded successfully to 585 routes in southern Canada and the United States east of the Mississippi River in 1966, and encompassed nearly 900 routes in additional states and provinces westward to the 100th meridian in 1967. The census will be extended to the Pacific Ocean in 1968.

The census is based on 1°-latitude–longitude blocks east of the 100th meridian (50 × 75 miles on the average) including 16 routes per block. Where manpower is not available, the number of routes must be reduced. A 2°-block will be used west of the 100th meridian.

Raptors

Concern for the future of our raptors continues as evidenced by the continuation of a wide variety of research projects. Comments on several species follow:

Kites.—In view of the widespread declines of many birds of prey, it is of considerable interest that both the White-tailed Kite and the Swallow-tailed Kite appear to be increasing in numbers and re-occupying past breeding areas.

The range of the Swallow-tailed Kite formerly extended across eastern North America from Minnesota to upper New York state, but over a half century ago its

range was reduced to certain river and coastal swamp forests from Florida to Texas. In recent decades the breeding range has expanded northward across Georgia into South Carolina and probably farther north.

About half a century ago the White-tailed Kite suffered a drastic reduction in the United States; the Florida population disappeared almost completely, in Texas the birds were reduced to a small remnant, and it was feared that the somewhat larger California population would be exterminated. During the last 15, and particularly the last 5 years, California has witnessed a spectacular comeback at a time when both agriculture and urban pressures have increased many-fold. Your Chairman has watched no less than 50 fly into just one night roost site. It may be noted that the kite feeds chiefly upon mice, a "C-2" (herbivore) position in the food chains, where it may not accumulate high pesticide residues. The White-tailed Kite still nests in Texas.

The Mississippi Kite population is doing well, probably breeding from South Carolina westward across panhandle Texas to Roswell, New Mexico.

Golden Eagles.—In a rare moment in history, the National Audubon Society, the National Wool Growers Association, and the U. S. Bureau of Sport Fisheries and Wildlife became parties to an agreement to establish a one-year study of the Golden Eagle. This study will cover populations, movements, annual distribution, the extent and nature of predation, among other things, including relationships to sheep and goat raising. A three-man policy board representing these organizations will select an investigator, probably a university, to carry out the jointly-funded study. Results of this highly controversial subject will be awaited with much interest in many quarters.

Although abundant evidence now shows that breeding eagles are of negligible influence upon livestock operations, even in the midst of sheep country (McGahan, in this issue), little is known of the Golden Eagles wintering in the sheep country of western Texas and New Mexico.

Conservationists are trying to reserve an area on the west bank of the Potomac called Masons Neck, where the Bald Eagle still nests within just a few miles of the United States Capitol.

Eagle nesting studies are being conducted by the U. S. Fish and Wildlife Service in southeastern Alaska, and a cooperative effort between the U. S. Forest Service, the Alaska Department of Fish and Game, and the University of Alaska will also study the nesting and nesting habitat of Bald Eagles with regard to the effect of logging on nesting success. Also it should be noted that the National Audubon Society has succeeded in enlisting the cooperation of a number of major timber corporations in protecting eagle nesting sites on corporation lands.

Peregrine Falcon.—In eastern North America the resident and breeding populations have completely disappeared south of the St. Lawrence River, principally between 1950 and 1960, with the possible exception of a few pairs in the Maritime Provinces.

On the other hand, Arctic populations appear to remain in only slightly altered numbers, as indicated by fall migration counts along the eastern coast, the Texas Gulf Coast, and through the Great Lakes. Spofford reports a 1967 restudy of a known population in the Arctic slope of Alaska (by Cade and collaborators) revealed that the species is holding its own along the Colville River. Both the Yukon River and the lesser known MacKenzie River population (Enderson and Berger) appear to have high residues of some chlorinated hydrocarbons.

The Raptor Research Foundation has been formed by interested persons in ornithology, wildlife management, and falconry for the purposes of assessing raptor populations, the biology of the birds of prey, and to investigate methods of breeding falcons

and hawks in captivity. In the long run, falconers with proper dedication and training can contribute significantly to the understanding and conservation of the birds of prey. However, the taking, under permit of the British Columbia Fish and Game Branch, of 41 eyasses from the known 45 nest sites in the Queen Charlotte Islands group in 1967 indicates that falconers continue to exert pressure on remaining peregrine populations. The proceedings of the International Peregrine Conference held at Madison in 1965 are being edited by Joe Hickey, and will be published in book form by the University of Wisconsin press.

Other species.—Local changes in raptor populations may be indicative of phenomena of broader significance, and it is of note that in New York State the Common Harrier nearly disappeared as a breeding species except for scattered pairs in some larger marshlands (e.g. Montezuma National Wildlife Refuge) at a time when the annual fall counts at Hawk Mountain, Pennsylvania, have shown a considerable increase. Similar conditions prevail in regard to the Osprey in New York and New England, where greatly reduced nesting success has occurred at a time when the fall flights from farther north are larger than before.

A similar local cutback in the smaller accipitrine hawks (Cooper's and Sharp-shinned) in New York state has been accompanied or followed by an apparent increase or replacement by the Goshawk. Much of the former farm lands at higher elevation in this region are now abandoned and becoming second growth woods suitable to the Goshawk. The Goshawk feeds largely upon such herbivores as rabbits, squirrels, and grouse, again at "C-2" level in the food chain and not so high in the ecosystem as the smaller accipitrine hawks and the Peregrine Falcon. Possibly this may permit the Goshawk to spread into areas where it has not occurred before and which were formerly inhabited by the smaller Cooper's Hawk.

Research

Among the several "good news items" from the 1967 U. S. Congress was the passage of legislation that will permit more adequate staffing of the Wildlife Cooperative Research Units. Some 17 units will now have two men on their staffs instead of one as in the past. This will put them in a position comparable to that of the Fisheries Research Units whose establishment a few years ago was blessed with insight and experience resulting from the earlier operations of the Wildlife Units.

Research on substitute shot was conducted during 1967 at James Bay under the cooperation of the Canadian Wildlife Service, the U. S. Fish and Wildlife Service, the Province of Ontario, and the ammunition industry.

"Ecology" is a magic word these days. The Smithsonian Institution has its Office of Ecology, and early in 1967 the U. S. Department of Interior established its Office of Ecology headed by Dr. John L. Buckley. Ornithologists everywhere should be pleased with the increasing trend towards recognition of the interrelationships of our natural environment. It is hoped that ornithologists, deeply involved in their own areas of research and interest, also will take the ecological approach in cooperating with overall environmental resources conservation.

Bird control.—Certain birds continue to create economic, safety, health,

and nuisance problems. Research on these problems is being conducted at universities, by several states, and by the Bureau of Sport Fisheries and Wildlife. The present emphases in the Bureau's program are on basic studies of the ecology, behavior, and physiology of the problem species, on the development of specific and safe bird control agents, and on assessment of the effects of bird control programs on the environments and the populations treated.

Although frightening devices still are the main tools available for alleviating nuisances caused by birds, the Bureau has made encouraging progress in the field of chemical control. A new avicide, considerably more toxic to starlings than to mammals or to birds of prey, has been developed for use in controlling starlings in cattle feed lots. Another chemical, a distress-producing agent, has been used experimentally with considerable success in South Dakota to reduce corn depredations by blackbirds. Others are being tested as frightening agents and as wetting agents. Behavioral and physiological studies are aimed at finding weak links in the body chemistry of the problem species. As an example of the latter, studies of avian sensory mechanisms have led to a patent on the application of chemicals to the feet of blackbirds. Another area of study is the development of crop strains less susceptible to avian attack.

In an attempt to reduce the hazard to aircraft in flight caused by migrant birds, a team headed by Dr. W. W. H. Gunn and supported by the Canadian Wildlife Service has been studying detailed and continuous radar records of flying birds and correlating those records with associated weather patterns. A workable method of forecasting the intensity of migrant movements at a test area in western Canada has been developed. Further results of this work are expected to be of considerable ornithological significance as well as a useful contribution to flight safety.

Introductions and Exotics

It has long been known that Texas and New Mexico have strongly favored the use of introduced big-game mammals in their state programs. Perhaps less well-known is the fact that a considerable number of introduced waterfowl and upland game bird types are being experimented with in the southeastern states. This subject was covered thoroughly during the Southeast Wildlife Conference in Asheville, North Carolina, in October 1966. Jungle fowl and tinamou were among the primary upland species being tested. Florida has an active program of experimental introductions of the Muscovy, Bahama Pintail, Rosybill and South American Pochards, Brazilian and Ringed Teal.

A special symposium on introduced and exotic species was sponsored in August by the Texas Chapter of The Wildlife Society at the annual meet-

ing of the American Institute of Biological Sciences in Texas. Further evidence of interest in this area is the fact that there will be a special session on this subject at the 33rd North American Wildlife and Natural Resources Conference to be held in Houston, Texas in March 1968. Some wildlife professionals believe that the profession first should be doing everything possible with their native species before trying to import "greener grass" from foreign lands.

The Environment

Pollution.—The "Torrey Canyon" ship disaster was among the biggest in recent years to prove that oil and waterbirds do not mix. While this was an accidental disaster, it certainly has had its repercussions around the world. In the United States, Congress has hastened to study existing legislation designed to prevent similar disasters on our shores. Oil spills occur not only on the high seas and coastal shores but in some of our major rivers and lakes as well, wherever shipping and oil drilling are carried on. Although international conventions met in 1924 and again in 1954 to regulate or prevent pollution of the sea by oil, it is still a problem. Industry, as well as our own nations, must continue every effort to cure this problem.

Certainly we all recognize that quality of air and water has its effect, both directly and indirectly, upon birds and the bird habitats. Steps for the improvement of air and water quality throughout the nation have been taken through legislative acts, but it still remains for the citizenry at the local level to see that suitable quality requirements are established and carried out as soon as possible.

Pesticides continue in the current news. One of the latest is an attempt to prevent the use of DDT by legislation (SB-1025) sponsored by Senator Gaylord Nelson.

Wetlands and estuaries.—A major piece of legislation (HR-25) was introduced by Congressman John Dingell. If it comes out of Congress this year, it will go far to assist in affording some protection to coastal estuarine areas. Countering the effects of this legislation is another bill introduced by Senator Tydings of Maryland which would increase the Corps of Engineers activities and responsibilities for shoreline protection. In the meantime, it is hoped that a joint agreement made in July between the U. S. Department of Interior and the Corps of Engineers will go far to accomplish many of the objectives of HR-25.

Conservationists have introduced legislation in several states, notably Massachusetts, Connecticut, New Jersey, Florida, and California to halt destruction of salt marshes and estuaries. Massachusetts has already enacted effective controls. Efforts in Connecticut to date have been stalled. Florida stands a good chance of halting the further sale of submerged

lands without prior approval of an aquatic biologist. Threat to the Great Swamp in New Jersey has, so far, been averted.

The U. S. wetlands acquisition program begun in 1961 was to acquire 2.5 million acres. At the end of its seven-year life (1968), it is estimated that about $77 million will have been used to purchase 1.1 million acres of wetlands. Legislation is proposed (HR-480 Dingell and S-1078 Metcalf and G. Nelson) to extend the authority for eight more years to complete the planned acquisition.

Hearings were held by the U. S. Senate Committee on Commerce on these on 16 and 17 August, and at the same time they held hearings on S-322 Metcalf, Hruska, and Tydings. This latter bill would require approval by the Migratory Bird Conservation Commission for sale or disposal of lands in the national wildlife refuge system, and, further, that there be fair-market value reimbursement for lands diverted from the system.

The Army Corps of Engineers have been restrained temporarily from pulling the earthen plug in Canal-111, which would dump salt water into Everglades National Park. The National Park Service, U. S. Geological Survey, and other conservation organizations supported the suit brought by the National Audubon Society against the Corps in this instance. Modifications are being designed for an appropriate control structure.

For probably the first time in history, the Corps of Engineers in Florida refused to grant a permit to alter an estuarine area in Boca Ciego near St. Petersburg because the project would be damaging to wildlife. It is hoped that wildlife values will be considered seriously in all future requests to the Corps to dredge and fill coastal wetlands.

Dredge and fill operations in San Francisco Bay are at last meeting organized resistance by conservationists, and the A.O.U. would do well to support these efforts.

Engineering.—Man's capabilities for manipulating our natural environment through engineering continue to have drastic effects upon wildlife resources and, of course, birds. The drainage of wetlands continues at a rapid pace. The Chairman especially noticed this in southwest Manitoba this summer where tremendous acreages of potholes and woodland areas are being drained, cleared, and converted to the production of grain. As this drastic habitat change is occurring throughout the prairie provinces as well as the northern prairie states, it seems that the Bureau of Sport Fisheries and Wildlife should look carefully at its own long-range programs for management of the waterfowl resources of the continent. Its present management plan assumes the *continuation* of the production areas as they have existed in the past. Present world human food production trends may negate this in the future. In the meantime, Canadian and U. S.

government agencies, the states, provinces, and Ducks Unlimited are trying to offset the trend.

In June 1967 the U. S. Department of Interior came out with a negative report on the Rampart Dam Project on the Yukon River in Alaska. Although the biological facts are strong against such a project, it took additional fortitude on the part of the Secretary of Interior to take this stand inasmuch as the Rampart Project has a strong political flavor. Another major proposed construction activity, the Texas Basin Project (or its equivalent in a State of Texas plan), will certainly have its effect on the estuarine areas of coastal Texas, affecting not only the shellfish and fish but the environment of water birds as well. It will bear watching.

Recreation.—It takes only a brief look at the world around us to note the great effects the changes in man's living and work habits are having on wildlife habitats. Shorter working hours and multiplying human population are placing pressures on the remaining open space. Hunting and fishing may become less productive of time and effort than they have been in recent past. Other recreational interests such as bird watching and photography may well take over as major interests among people.

For the first time, the 1965 U. S. National Survey of Fishing and Hunting reported that there were 8 million bird watchers and 3 million wildlife photographers in the United States. This by itself is certainly recognition of the fact that there are other users of bird and other wildlife resources than the hunter.

Part of this recreation pressure also is creating an interest in preservation. Organizations such as the Nature Conservancy, the National Audubon Society, and many sportsman's organizations are getting behind preservation projects in their local communities as well as on a nationwide basis. Ornithologists should do their share in supporting such activities.

Miscellany

In addition to the assemblage of material for this report, the Committee has had correspondence during the year with the Cleveland County Bird Club of Norman, Oklahoma, with respect to their resolution asking for stepped-up protection for the Quetzal in Middle America, with the Committee of 100 in Washington on the preservation of Bald Eagle nesting habitats on the Potomac River, with the National Falconers Association, and with parties interested in the preservation of natural wildlife habitat in Latin America.

In Conclusion

One of the major conservation problems today is jurisdiction—that is, the jurisdiction over wildlife matters as between a federal government and

a state or provincial government. More and more federal programs, at least in the United States, are "encroaching" upon those who believe strongly in "states rights." This philosophical conflict has prevented much progress in some conservation endeavors. It is hoped that this conflict may be resolved in the foreseeable future, for conservationists cannot succeed if they continue to fight among themselves. Our causes for overall good are certainly weakened thereby.

David Munro, Director of the Canadian Wildlife Service, in a feature article in the February 1967 *Wildlife Society News*, emphasized very well this "general interest" and summarized as follows:

> ". . . management of wildlife is, quite properly, based on social and economic as well as biological considerations.
>
> "If I seem to have overstressed points that are obvious, it is because I have observed that conservationists, in pressing their own interests, often appear unaware that opinions held by other people are equally valid, even though those opinions are based on different criteria. I hasten to add that I hope conservationists will never cease to help supply the information and make known their views in a way that leaders of government may reach the decisions which will most effectively meet the needs of the community concerned. I suspect that conservationists may win a better hearing and contribute more substantially to the process of reaching decisions if they bear in mind that there is no true 'general interest,' only a community of diverse interests."

Your Committee wishes to urge more dynamic activity on the part of ornithologists. Each ornithologist, as a citizen, should accept his obligation to the public interest, especially within his area of competence. If each ornithologist does not accept his responsibility, others, less knowledgeable in A.O.U. areas of competency, will make the decisions for him!

Your Committee wishes to express its sincere thanks for the helpful cooperation of a large number of individuals from governments, institutes, and private organizations throughout the continent. Without this assistance, no report would have been possible.

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