

## REPORT OF THE COMMITTEE ON CONSERVATION 1971-72

THE Conservation committee report this year continues the analysis of problems discussed last year, introduces new problems, and notes progress, or lack of it, on these issues. The great concern for and public awareness of environmental matters continues, as evidenced by the assembling of delegates from many countries at the environmental conference in Sweden, but progress here and abroad is slow.

### LEGISLATION

A notable landmark in legislation is the treaty with Japan, signed 4 March 1972, to protect 189 species of birds that fly between Japan and the U. S., mainly Alaska. The treaty also provides for preservation of important habitats, particularly wintering areas threatened with industrial encroachment, and bans the import and export of endangered species. The past few years has seen an alarming decline in Japanese migratory birds. Among the endangered species that fly between the two countries are the Short-tailed Albatross, the Peregrine Falcon, and the Aleutian Canada Goose (*Natl. Wildl. Fed. Conserv. News*, 37, 15 May 1972).

On 10 March 1972, the U. S. and Mexico formally ratified amendments to the 1936 Migratory Bird Convention, which extends protection to 63 families of birds common to both countries. Included are six families of birds of prey and many families of fish-eating birds not included in the original treaty. Authority to arrest persons caught taking endangered species is also provided for.

Another landmark is the cancellation at long last, by the Bureau of Sport Fisheries and Wildlife, of the use of 1080 in rodent and predator control on all but Indian lands. However the Bureau intends to "continue to protect livestock using non-chemical methods—wherever such activities are legal."

H. R. 10729, The Federal Environmental Pesticide Control Act of 1971, has had rough sledding. The House rejected six important amendments that would have greatly strengthened the watered-down bill advanced by the House Agricultural Committee. One favorable amendment that did pass would allow individual states to set stricter pesticide regulations than provided for in the proposed federal act. The Environmental Protection Agency (EPA) strongly condemned several provisions of the bill, but reaffirmed its overall support. Other amendments, known as the Nelson-Hart amendments, and others proposed by the Sierra Club, would greatly strengthen the bill. At this writing the bill has passed in the House, but is tied up in the Senate. Environmentalists are hoping for passage of the stronger bill (*Michigan Pest. Council Newsletter*, June 1972).

Hearings on the much-publicized, controversial DDT ban have run for 6 months with hundreds of witnesses and thousands of pages of testimony. Although the hearings have been criticized, the legal format has some advantages. As witnesses can be cross-examined one gets away from the foolish statements that are frequently made at Senate hearings. The lesson of the Washington hearings is that strict impartiality and scientific knowledge are necessary in the hearing

examiner and a higher code of conduct, i.e. no personal attacks by the lawyers involved.

The decision of the hearing examiner, Edmund Sweeney, to urge the continued use of DDT came as no surprise to those who had taken part in the hearings, but this decision was reversed by Mr. Ruckelshaus, Head of the Environmental Protection Agency, on 15 June. Appeals by the chemical companies can be expected. As it now stands DDT will be banned in the United States, except for a few minor uses, by the end of 1972.

#### OIL POLLUTION

Oil problems continue to plague the nations of the world, in spite of precautions, restrictions, and new regulations. Even oil companies, under public pressures, are becoming more cognizant of the problems they create. But the demand for greater oil reserves continues, with all its attendant problems. A comprehensive review of oil pollution as it affects birds and their rehabilitation has been published in U. S. Dept. of Interior Research Publication 87 by J. W. Aldrich.

Environmentalists suffered a severe blow when on 11 May Rogers Morton, Secretary of Interior, announced the approval of the trans-Alaska pipeline. The Department of Interior still has to go to court to have the injunction against the pipeline lifted and appeals can be expected all the way to the Supreme Court. The need to have the pipeline under the control of the United States was cited as the reason for rejecting the route through Canada. A real worsening of international relations must be expected if a route through Canada is deemed to be against the national interest.

#### PESTICIDES

The past year has seen a notable propaganda effort by the National Agricultural Chemical Association, a veritable "educational blitzkrieg," utilizing Norman Borlaugh's incredibly outdated defense of DDT, "Evil Weevil" cartoons, and other ethically questionable devices. A number of points raised may be briefly answered:

(1) It has been proposed that chemicals other than DDE are involved in egg-shell thinning. There is no scientific evidence that any compounds other than DDT and its metabolites are responsible. (2) That many analyses of DDT are invalid because of confusion with PCB's. Earlier values may well be too high, but DDE (the form that accounts for 80-90 percent of total DDT in biological samples) is not interfered with by PCB's, so error from this source is not serious. (3) That soil samples collected 60 years ago show peaks identical with several chlorinated hydrocarbon pesticides; peaks were found at the same place on one column but not on other columns. Since multicolumn analysis is the rule, competent residue analysis work is not in error from this source.

The work done on PCB's during the last year is an excellent illustration of the problems that can be caused by a persistent chemical that is not deliberately introduced into the environment. The U. S. production of PCB's during the decade 1961-71 was 310,000 tons (compared to 730,000 for DDT). Nisbet and Sarofilm (Environmental Health Perspectives, in press) calculated that in 1970 1,500-

2,500 tons were lost into the atmosphere, 4,000–5,000 tons into fresh or coastal waters, and 18,000 tons into dumps and landfill operations. Henderson et al. (Pest. Monitoring J., 5: i-ii, 1971) found that PCB residues exceeded total DDT residues in two-thirds of the fish samples collected from 50 points throughout the United States. One wonders how many other stable chemicals are present in the environment in the parts per million range. PCB's were located only because of their chemical similarity to DDT.

PCB's, although not involved in the thin eggshell phenomena, have greater effect on avian reproduction than DDT. Scott et al. (Cornell Nutrition Conf., 1971) found that 20 ppm Aroclor 1248 caused almost complete failure to hatch. Peakall et al. (Environmental Health Perspectives, in press) found that 10 ppm of Aroclor 1254 caused heavy embryonic mortality in doves in the second generation and 25 ppm had this effect in the first generation. This embryonic mortality is associated with increasing frequency of chromosomal breakage. A *prima facie* case can be made for associating abnormal young terns found on Long Island (Hays and Risebrough, Auk, 89: 19–35, 1972) with chromosomal alteration caused by PCB's, as the concentrations in the eggs were similar in both the field and laboratory samples. The input of PCB's into the environment should be sharply reduced by the voluntary ban on all but closed-circuit uses by the sole U. S. manufacturer, the Monsanto Company. Monsanto's action is commendable in comparison to the desperate attempts by several chemical companies to keep the persistent chlorinated hydrocarbon pesticides on the market.

Mirex, a very persistent organochloride, is still being broadcast in the southeast to control the imported fire ant, but the USDA's program continues to be scaled down from its ambitious beginning. The State of Florida declined to participate in the federal program but the state agricultural authorities undertook a control program of their own. A recommendation by the EPA (in a June news release) would ban aerial application in any county on the coast and prohibit the use of Mirex altogether in any situation where it might reach aquatic ecosystems. This recommendation was adopted by the Florida agricultural authorities in June. A lower Mirex dosage (0.45 g vs. 1.7 g per pound of bait) with a latex coating is being tested in Florida and may further reduce the quantity of Mirex used in the future. There are even hopeful signs that the agribusiness people are about to see that the imported fire ant is not the serious agricultural pest they once thought, but the USDA is attempting to strengthen its case by claims that the ant is a serious hazard to human health.

In turning away from the long-lasting (and long-acting) organochlorides such as DDT, dieldrin, and heptachlor, agriculture is turning to shorter-lived but much more toxic compounds on the theory that the single-application kill of pests should eliminate virtually every individual in the treatment area and lengthen the time before retreatment becomes necessary. The effects on bird life may be less insidious but more dramatic. Last winter about 10,000 Robins died near Homestead, Florida, from a single application of Shell Chemical's Azodrin in a potato field. The poison drifted onto Brazilian pepper shrubs (locally reported as "holly") where the birds fed and roosted. At least three other widely publicized

small bird kills occurred in south Florida last winter. Besides Azodrin, Dursban was the proved cause of one incident that also involved Robins.

#### RARE AND ENDANGERED SPECIES

The Bald Eagle and Osprey situation remains much the same overall, with some small gains and some losses. Sergej Postupalsky's continued surveys in Michigan show some improvement in number of young fledged in both eagles and Ospreys, but reproduction is still below what is needed to maintain these species. A Massachusetts Osprey survey in 1971 disclosed poor breeding success over the state as a whole with only 17 young successfully fledged.

*Brown Pelican.*—The West Coast Brown Pelican situation is encouraging, at least in part. Their status in northwestern Baja California is improved as compared to the past 3 years (Jehl, Condor, in press). Nesting began at Los Coronados in January, over a month earlier than in previous years. In early April more than 150 large young were present, and adults were still incubating at many nests. Nesting began at San Martin Island and the San Benito Islands in late January or early February and small young were seen on the San Benitos in early March. These preliminary results are encouraging, but it should also be noted that the number of pairs nesting on San Martin and Los Coronados is much lower than in 1969, when systematic observations were begun. In California, despite widespread publicity to the contrary, pelicans continue to fare poorly. No evidence was found of nesting on Anacapa Island in early April. Improvement in productivity can be related to (1) the general decrease in DDT usage and (2) the control of waste DDT that formerly escaped from the Montrose Chemical Corporation plant through the Los Angeles County sewers and into the Pacific Ocean.

An aerial survey of nesting colonies in Florida indicated an approximately stable adult population for at least the 5 years the species has been censused. State authorities (Florida Wildlife Research Projects Office, Gainesville) estimate the winter population in Florida at 20,000 Brown Pelicans of all age classes.

The best news yet about pelicans is that they nested successfully in Louisiana (the "Pelican State") for the second successive year after being reintroduced from Florida in 1968. Between 50 and 200 flightless fledglings have been taken from prospering colonies in Florida in a cooperative effort by the wildlife agencies in the two states, and released near Grand Isle, Louisiana. The first nesting effort of the restocked birds took place within 1 mile of the release site in 1971. Only the 3-year-olds nested. In 1972 the survivors of the 1968 release were joined in nesting by those that were moved to Louisiana in 1969. The recent nesting successes are heartening, but only time and research will tell whether the Louisiana environment can hold its pelicans now.

*California Condor.*—Although the condor population seems to be holding its numbers at around 50–60 birds, the reproductive rate continues extremely low. During the past four breeding seasons only four young are definitely known to have been reared (1 each year). Age ratios observed make it certain that total annual productivity is averaging two birds or less per year. Therefore, even though mortality appears extremely low from all causes, the condor is in definite jeopardy if reproduction does not improve.

*California Least Tern* (*Sterna albifrons browni*).—The Pacific Coast race of the Least Tern is included on the Secretary of Interior's list of endangered wildlife, mainly because it has lost most of its nesting and feeding habitat to human encroachment. In 1969–70 only 15 nesting sites were known, these used by a total of about 300 pairs of terns. Only three sites harbored 25 or more pairs of terns (California Department of Fish and Game report). Several of the best sites are jeopardized by highway and marina construction and other human activity.

Several encouraging events happened this past year. The Department of Fish and Game had a graduate student studying one of the larger colonies to see what problems might be apparent besides actual loss of habitat; the Orange County Board of Supervisors was convinced by local conservationists to modify plans that would have destroyed one colony; the U. S. Navy is trying to create some new Least Tern nesting terrain at its Seal Beach Naval Weapons Station; the Marine Corps at Camp Pendleton is protecting their Least Tern colony by posting and by protective barriers; and a tern sanctuary has been established in San Diego—and fenced off to keep out cars, motor bikes, and other disruptive elements. The tern's plight is still serious as more and more marsh and beachland is converted to other uses.

*Clapper Rails*.—The two California coastal races of Clapper Rail (*R. longirostris obsoletus* and *R. l. levipes*), both classified by Interior as endangered, continue in serious trouble as the California estuary situation becomes more and more critical. *Obsoletus* is found only in the San Francisco Bay area where, even though bay filling has slowed down in recent years, marshland continues to be lost. *Levipes* occurs in only about 10 small marshes along the coast south of Santa Barbara; almost every one of these marshes is threatened by some development, marinas and freeways in particular. A few bright spots are: the possibility of national wildlife refuges in South San Francisco Bay and at Upper Newport, and a (currently) successful fight by the U. S. Navy and concerned citizens against a new freeway at Seal Beach. But without some real organization and large scale preservation effort soon, the Clapper Rail and the Least Tern might well be lost to California. Some Least Terns in San Diego now nest on the airport—something the Clapper Rail can't do.

*Sandhill Crane*.—There may be more Sandhill Cranes in the eastern United States than formerly realized. Recent studies in Florida suggest that wintering *Grus canadensis tabida* in Florida and the resident race (*G. c. pratensis*) probably each exceed 5,000 individuals. The single most important wintering ground for *G. c. tabida* in Florida (and eastern U. S.) was recently purchased by the state for a state park and wilderness area with some promise that the cranes will receive top management consideration.

*Everglade Kite*.—The 1971 drought in southern Florida caused poor nesting conditions and wide dispersal of the birds. Paul Sykes reports a January 1972 census of 70 kites in south Florida.

*Wood Stork*.—The situation for this species in Florida continues adverse. Nesting was poor again last summer. On the somewhat brighter side, Alexander Sprunt IV reports the discovery of a long suspected large colony in Campeche,

Mexico. This is probably the source of the Wood Storks seen regularly in Texas and Louisiana, where they do not nest.

*White and Glossy Ibises.*—The State Legislature in Louisiana placed the ibises on the “game bird list” during its 1970 session (letter from R. K. Yancey) but the Louisiana Wildlife and Fisheries Commission has resisted declaring an open season on them. Alleged depredation on crayfish farms was behind the legislature’s move.

*Roseate Spoonbill.*—Roseate Spoonbills continue to thrive and extend their range in Texas, Florida, and Louisiana (Alexander Sprunt IV).

*Cape Sable Sparrow.*—No data on population numbers are available but canal construction and other digging on private property in the heart of their range on the tip of Florida may lead to a serious loss of habitat.

*Dusky Seaside Sparrow.*—The discovery in 1968 of a population of Dusky Seaside Sparrows in the St. Johns River Marsh west of the better known site on Merritt Island moved the species a step away from the very precarious situation it was believed to occupy at the time. Now the densest and largest part of this newly discovered population is threatened by an extension to the “Beeline Expressway” designed to rush visitors to and from Disney World. The highway project, which cuts through some of the denser sparrow “colonies,” has created enough stir among conservationists to force some concessions from the Florida Department of Transportation and may have helped accelerate land purchases for the new federal wildlife refuge in the sparrow’s habitat north of the highway construction lane in Brevard County. There has been no indication, as yet, of any serious recent population decline.

*Kirtland’s Warbler.*—Perhaps the most alarming crisis in the status of endangered species is the precipitous decline in numbers of Kirtland’s Warbler. Only about 200 pairs (400 individuals) were found in the 1971 spring survey over all of their known nesting grounds in north-central Michigan, a 60 percent decline from the 1961 survey (see Mayfield, *Auk*, 89: 263–268, 1972). Reasons for the decline are still speculative: loss of suitable nesting habitat, possible losses in the Bahaman wintering grounds (now under investigation by Bruce Radabaugh), and near annihilative inroads by the Brown-headed Cowbird. A cowbird trapping program, sponsored and executed by the U. S. Forest Service, the Michigan Department of Natural Resources, and the Michigan Audubon Society, is under way.

*Water bird die-offs.*—Waterfowl and other aquatic birds are noted for dying off in large numbers from causes that sometimes remain unexplained. The Atlantic Coast of Florida has been experiencing high bird mortality even more frequently and severely in recent years. Last winter mortality of dramatic proportions struck Common Loons, Brown Pelicans, and a scattering of other species. Intensive investigation by the Florida Game and Fresh Water Fish Commission failed to pinpoint the cause, but persistent pesticides, oil spillage, botulism, and bad weather were eliminated as probable causes. The agency estimates that at least 3,000 loons and about 300 Brown Pelicans (an endangered species) died on Florida beaches during the 4-month outbreak. A mail survey of experienced bird watchers in the state indicates that a loon-pelican die-off of some proportion has occurred every winter lately on the east coast of Florida. Considering the low

productivity of loons and pelicans, and water birds in general, a close monitoring of these die-offs in the future is certainly needed. Similar often unexplained declines have occurred on the Pacific Coast. Similar losses in the Great Lakes were believed, after prolonged investigations, to be due to botulism.

#### HABITAT RESTORATION

Offsetting to some extent the continued destruction of habitat, from Alaska to the tropics, is the concerted effort to maintain, restore, and set aside public and private lands for the welfare of wildlife. A notable case for beleaguered birds of prey is the Snake River Birds of Prey Natural Area along a 30-mile stretch of the Snake River in Idaho (ICBP President's Letter, December 1971), the first such area in the U. S. to be devoted primarily to the management of birds of prey. The "40 square miles, including a long canyon that harbours an incredible density of raptors," is administered by the Bureau of Land Management. Hunting and hiking will be "discouraged" between February and July, and mining is forbidden except for coal, gas, and oil. Damming the canyon for hydroelectric power is considered (by the bureau) to be compatible with bird of prey conservation, but currently public sentiment is running heavily against power development in favor of the sanctuary.

An attractive brochure from the Missouri Department of Conservation describes their wildlife program in the Clark and Mark Twain National Forests. They hope to achieve greater forest diversity in a coordinated, ecologically-oriented, timber-wildlife program.

Another encouraging development is the Department of Interior's proposal to set aside 80 million acres (an area equivalent to that of New York, Pennsylvania, New Jersey, New Hampshire, and Vermont combined) as National Parks, Wildlife Refuges, Forests, and Scenic Rivers. A final selection is scheduled for mid-September. In addition a further 48 million acres will be selected for other public purposes.

Competing with these land withdrawals, and often accompanying them, is the demand for more public lands for recreational motor vehicles (snowmobiles and motor bikes) that destroy landscape, harass wildlife, cause noise pollution, and waste fossil fuels.

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