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The Migratory Bird and Habitat Research Laboratory and the Accelerated Research Program

By Richard A. Coon

The Patuxent Wildlife Research Center (Patuxent) housed two important programs that were not supervised through the office of the Director of Patuxent during the 1960s and 1970s. Although they received administrative support from Patuxent, they were supervised from the U.S. Fish and Wildlife Service (USFWS) headquarters in Washington, D.C. One, the Migratory Bird Populations Station (MBPS), was established in 1961; the other, the Migratory Bird and Habitat Research Laboratory (MBHRL), was established in 1972 (Perry, 2004). This chapter briefly discusses MBPS and how some of its functions were transferred to MBHRL when this new laboratory was created.

Migratory Bird Populations Station

The main purpose of MBPS was to be a central location for the USFWS to study migratory bird population dynamics across political and administrative boundaries. Its responsibilities were international in scope, carried out in cooperation with Canada, Mexico, and the 50 States, as well as universities and private organizations.

Included as part of MBPS was the internationally recognized Bird Banding Laboratory, along with key staff tasked with collecting harvest information, analyzing population and production data, and helping to develop annual hunting regulations for migratory game birds. When the Gabrielson Laboratory was dedicated in 1969 as a major location for USFWS migratory bird programs, all MBPS personnel were moved there, including the Atlantic Flyway Representative position, which had been located in Delaware. The major computer system of the USFWS was then in the Bird Banding Laboratory and functioned to process and analyze the millions of bird banding records to estimate the abundance, survival, and distribution of migratory birds during their annual cycle.

Creation of the Migratory Bird and Habitat Research Laboratory

In July 1972, the management and research functions of MBPS were split and transferred to two newly organized entities. One was the Office of Migratory Bird Management (MBMO), housed at Patuxent but supervised from USFWS headquarters in Washington, D.C. Dr. John P. Rogers was the office's first chief. The other was the newly organized MBHRL at Patuxent, which was added to the Division of Wildlife Research, with Dr. Robert I. Smith as its first director. Dr. Fant W. Martin became director of MBHRL when Smith was called to Washington, D.C., with Jerry Longcore in 1973 to work on the national issue of lead poisoning in waterfowl. Fant's secretary was Marylu Lammers. Fant hired Drs. Franklin Percival and Stanley Anderson to supervise the Game and Non-Game Sections, respectively. Members of the Game Section included Byron (Ken) Williams, Chuck Kimball, Bob Munro, Lois Moyer, Richard Coon, Paul Geisler, George Haas, Jerry Longcore, Jim Nichols, Jim Hines, Tom Dwyer, Matt Perry, Mike Haramis, Holly Obrecht, Fran Uhler, Ralph Andrews, and Frank McGilvrey. Among those involved in nongame work were Chan Robbins, Mark Fuller, Mike Erwin, Deanna Dawson, Barbara Dowell, Elwood Martin, and Marshall Howe.

Migratory Bird Habitat and Research Laboratory Activities

During the 1970s, Patuxent was growing larger. Its staff was concentrating on contaminants research as well as its newest function, the Endangered Species Program, whereas activities such as wetland research (Wetland Ecology Section) were receiving less emphasis. Additionally, Patuxent increased the number of field stations around the country. Because of this shift in emphasis and an expansion of field station responsibilities, the Wetland Ecology Section was transferred to MBHRL.

Shortly after the transfer, the long-running impoundment management program at Patuxent was discontinued.

MBHRL activities in the 1970s were divided between field research and in-house work at Patuxent. One noteworthy feature of work at Patuxent was the increased responsibility for analyzing migratory bird population data. Drs. Dave Anderson and Jim Nichols achieved international prominence with their sophisticated modeling techniques, which improved the management potential for waterfowl populations and other migratory birds on a large scale.

Off-site work on species of concern and species groups was conducted in specific geographic areas. In Maine, Tom Dwyer and Bill Krohn worked on the American woodcock (*Scolopax minor*), and Jerry Longcore focused on the diminishing population status of black ducks (*Anas rubripes*). Matt Perry and Mike Haramis conducted canvasback (*Aythya valisineria*) studies both at Patuxent and on Chesapeake Bay. In South Carolina and Georgia, George Haas conducted extensive research on mourning doves (*Zenaida macroura*). In many of these studies, radiotelemetry techniques were used widely to collect data that otherwise would not have been available.

MBHRL disbanded in 1981, and Patuxent absorbed its functions and responsibilities. Fant Martin had transferred to MBMO in 1980 and, after another year under interim Patuxent Director John Rogers, Jr., the lab was closed as directed by USFWS headquarters.



George Haas, U.S. Fish and Wildlife Service, capturing a dove in South Carolina, 1977. Photo by Matthew C. Perry, U.S. Fish and Wildlife Service.

Accelerated Research Program for Migratory Shore and Upland Game Birds

Since the passage of the Migratory Bird Treaty Act in 1918, the Federal Government and, ultimately, the USFWS, has been responsible for the management and study of migratory birds. One group, generally known as webless migratory birds, had been largely understudied, however. By the mid-1960s, a growing belief existed among wildlife managers that this situation needed to be remedied. Consequently, State wildlife managers working with the USFWS acted to obtain congressional funding for the Accelerated Research Program (ARP), which focused on migratory shore and upland game birds, in 1967 (MacDonald and Evans, 1970).

In 1972, the ARP, under the overall direction of Fant Martin, became one of the programs within MBHRL at Patuxent. The following biologists provided oversight to the program by serving as contract managers: Henry (Milt) Reeves, 1967–68; Duncan MacDonald, 1968–71; Fant Martin, 1971–75; Richard Coon, 1975–80; and Tom Dwyer, 1980–82.

The two primary forces behind the formation of the ARP were the Southeastern Association of Game and Fish Commissioners and the International Association of Game, Fish and Conservation Commissioners (later the International Association of Fish and Wildlife Agencies [IAFWA]). The species to be studied included Wilson's snipe (*Gallinago delicata*), rails (Rallidae), American coots (*Fulica americana*), sandhill cranes (*Grus americana*), American woodcock, and the various doves, principally the mourning dove, and white-winged dove (*Zenaida asiatica*).

The paucity of biological information on these species was reducing the capability of the USFWS and the States to manage them as game birds (for example, setting hunting seasons, determining season length, establishing bag limits).



Young woodcock banded at Patuxent Wildlife Research Center, Laurel, MD, by Brooke Meanley, U.S. Fish and Wildlife Service, 1979. Photo by Matthew C. Perry, U.S. Fish and Wildlife Service.



Frank Percival, U.S. Fish and Wildlife Service, recording data on September dove survey at Patuxent Wildlife Research Center, Laurel, MD, summer 1979. Photo by Matthew C. Perry, U.S. Fish and Wildlife Service.

Their food habits, population status, migration characteristics, and general life histories would be the target of the new research effort. With the loss of habitats for these species increasing, the need for information about the population health, status, and distribution was becoming critical. Techniques such as radiotelemetry, cannon netting, mist netting, night lighting, banding, and color marking were important research tools. In addition to the State wildlife agencies that were seeking funds, many universities and cooperative wildlife units competed for money to support M.S. and Ph.D. studies. After a few years, workshops were held to present, publish, and disseminate tribute research results.

In July 1967, Congress initiated an annual appropriation of \$250,000 to fund the ARP. Of this amount, \$175,000 was to be contracted to the States to support individual research projects, \$50,000 was retained by the USFWS for research on woodcock and mourning doves, and \$25,000 was retained for program administration. The USFWS administered the contracts, provided oversight and review for selected projects, and received the final research reports. In the 16 years during which the program was active, 122 research projects were completed in 41 States (Eshmeyer and Harris, 1974).

Research by the USFWS under the ARP was conducted on woodcock in Maine, mainly at the Moosehorn National Wildlife Refuge, first by William Russell and then by William Krohn and Tom Dwyer. In South Carolina and Georgia,

Spencer Amend was the first biologist to study mourning doves with ARP funding; he was followed by George Haas.

Termination of the Accelerated Research Program

The ARP was terminated in October 1982, when annual funding was discontinued because of fiscal constraints imposed on the USFWS. Approximately \$2.5 million had been awarded to the States over the course of the 16-year program. An estimated 340 publications resulted from the ARP (Ronnie George, Texas Parks and Wildlife Department, written commun., 1985).

An important outgrowth of the ARP was the publication of "Management of Migratory Shore and Upland Game Birds in North America" in 1977, under the direction of the IAFWA (Sanderson, 1977). This book, edited by Glen C. Sanderson of the Illinois Natural History Survey, summarized the data and other information that had been collected to that point, primarily through ARP funding, about migratory shore and upland game birds. Additionally, it identified future actions and needs for these birds, including financial support, to ensure sustainable populations for the public to enjoy. The book was updated and reissued in 1994 (Tacha and Braun, 1994).

Importance of the Accelerated Research Program

A primary value of the ARP was its direct benefit to wildlife managers, particularly at the State level. The vast majority of the studies consisted of applied research that focused on important webless migratory game-bird species. In addition, because proposals for research were guided by the States, the studies were needs based. The ARP arguably enhanced our collective understanding of the biology of webless migratory game birds more than any other wildlife management program. Listed below are a few examples of the many outcomes and benefits that resulted from this important cooperative program:

1. The hunting of mourning doves was legalized in Wyoming, Nebraska, and North Dakota.
2. Hunting pressure and harvest rates were shown to have little adverse effect on mourning dove survival.
3. Hunting seasons on band-tailed pigeons (*Columba fasciata*) were reinstituted in Arizona, Colorado, New Mexico, and Utah.
4. The redefinition of harvest unit boundaries resulted in increased hunting opportunity for snipe and rail hunters.
5. The understanding of the timing of American coot migration was improved.

6. Subpopulations of sandhill cranes were identified.
7. Estimates of allowable harvest rates for sandhill cranes were improved.
8. Identification of woodcock migration routes and wintering locations through intense banding programs allowed for the development of two management units (eastern and western) for improved harvest management.
9. Wetland habitats preferred by rails and common snipe were identified.
10. Census procedures for rails were developed.
11. The interchange of knowledge, thoughts, and ideas among individuals working within the States, the regions, and various other agencies, universities, and organizations was facilitated.

Revitalization of the Accelerated Research Program

Beginning in 1986, there was renewed interest on the part of the States and the USFWS to revitalize the ARP with new funding. After a 9-year delay, \$300,000 was made available for the program, which was renamed the Webless Migratory Game Bird Research Program (Dolton, 2002). Funds were set aside by Dr. Ronald Pulliam, then Director of the Biological Resources Division of the U.S. Geological Survey. This one-time funding was followed in 1996 by an annual allocation of \$150,000 from the USFWS. Dolton (2002) of the USFWS, Office (now [2016] Division) of Migratory Bird Management, in Denver, CO, reported that in the first 6 years of the renewed program, 32 research projects were completed with more than \$1.1 million of program funds. This number increases to approximately \$4 million when the contributions of materials, time, and additional support made by State wildlife agencies, universities, and other non-USFWS sources as the research projects were conducted are considered.

Summary

The unique quality of a major wildlife research center like Patuxent is its ability to adapt to changing times, changing research needs, and changing budgets. As managers and directors come and go, new programs are born and older programs disappear. The Migratory Bird and Habitat Research Laboratory (MBHRL) and the Accelerated Research Program (ARP) exemplified changing times and priorities; nevertheless, the achievements of both while they existed left a lasting mark on natural-resource conservation. Since then, Patuxent-wide work has carried on as former MBHRL personnel, including ARP staff, were absorbed into other Patuxent programs. Throughout



Normal and albino Virginia rails banded by Mike Haramis at Patuxent River, 1992. Photo by G. Michael Haramis, U.S. Fish and Wildlife Service.

its history, Patuxent has maintained its reputation as a world-renowned wildlife research center—a tribute to the resiliency and dedication of its staff, whose extraordinary productivity has been sustained throughout.

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