



PROVIDING WILDLIFE SERVICES

Goal: Provide high-quality wildlife damage-management services for our customers that result in the protection of agriculture, wildlife and other natural resources, property, and human health and safety.

NATIONAL SUPPORT

Pelican Trapping—During March 2000, a biologist from NWRC's Starkville, MS, field station traveled to east central Baja California, Mexico, with a professor and seabird ecologist from the University of California at Davis to survey pelicans. The NWRC biologist provided training on the use of modified padded leghold traps to live-capture pelicans, herons, and cormorants. These techniques and traps will be used to capture brown pelicans nesting on islands in the Sea of Cortez for a satellite telemetry study to determine their movements. This information will enable managers to better understand pelican ecology and devise an integrated, ecologically based plan for managing pelican depredations on aquaculture farms in the Southeastern United States.



National Audubon Society Christmas Bird Count—Several members of NWRC's Sandusky field station participated in the annual National Audubon Society Christmas Bird Count (CBC) in northern Ohio in December 1999. Each CBC consists of a 1-day inventory of all birds by species and numbers observed within an area defined by a 24-km diameter circle. More than 2,000 CBCs, some going back to the early 1900s, are conducted in North America during the 2-week Christmas season each winter. The data, compiled into a data base by the Cornell Laboratory of Ornithology, provide a valuable source of information on population trends, migration patterns, and winter ranges of birds

throughout North America. This information is frequently used by NWRC scientists to help understand and resolve various conflicts between migratory birds and humans. This is the 21st year that NWRC biologists have participated in the Firelands CBC.

Aviation Accident Investigation Committee—At the request of a Federal transportation agency, a scientist at NWRC's Sandusky field station served during 1999 on an accident investigation committee to examine the increasing problem of aircraft collisions with wildlife (wildlife strikes) and make recommendations for actions to reduce these strikes. This investigation was precipitated by

two incidents in 1999 in which two-engine commercial jetliners encountered flocks of birds (snow geese and starlings) that damaged both engines on each aircraft.

In a final report issued November 19, 1999, nine recommendations were made to the Federal Government as an integrated approach to reduce wildlife strikes and minimize the likelihood of the loss of a commercial jetliner:

1. Evaluate the potential for using radar to provide civil air traffic control personnel and flight crews with near real-time warnings of bird migration and movement activity (Avian Hazard Advisory System).

2. Coordinate with NWRC to conduct research to determine the effectiveness and limitations of existing and potential bird hazard reduction techniques.

3. In consultation with USDA's WS program, require that wildlife hazard assessments be conducted at all airports that must be certified for commercial traffic (14 Code of Federal Regulations, Part 139) where such assessments have not been done.

4. Require the development of wildlife hazard-management programs for all airports determined to need one as a result of wildlife hazard assessments proposed in recommendation 3 above.

5. Ensure that the wildlife hazard-management programs are incorporated into airport certification manuals and periodically inspect the progress of the programs.

6. Require all airplane operators to report wildlife strikes to FAA (reports are now voluntary).

7. Contract with an appropriate agency to identify bird strike remains (presently, about 50 percent of reported bird strikes do not provide any information on species struck).

8. Before allowing high-speed, low-level aircraft operations, evaluate the potential risk of increased bird-strike hazards to air carrier turbojet aircraft.

9. With representatives from USDA and various Federal agencies, establish a permanent bird-strike working group to facilitate conflict resolution and improve communication among aviation safety agencies and wildlife conservation interests.

Brown-Headed Cowbird Roundup—

Biologists at the NWRC's Sandusky field station captured 400 brown-headed cowbirds in April 2000 that were used in the cooperative recovery effort for the endangered Kirtland's warbler in Michigan. The cowbirds trapped in Ohio were taken to Michigan and used as decoys to lure other cowbirds to traps in areas of jack pine forest where warblers nest, thereby reducing the incidence of nest parasitism.

The 400 decoy birds resulted in 4,345 cowbirds being captured in Kirtland's warbler nesting habitat during May through July 2000. About 117,000 cowbirds have been removed from the warbler nesting area since the trapping program began in 1972. Since 1972, cowbird parasitism has been reduced from over 50 percent to less than 5 percent of nests, and the nesting population of warblers has increased from about 180 to more than 800 pairs.

One shortcoming of the trapping program has been that about 55 percent of the birds captured were males (65 percent in 2000). NWRC is presently designing a study in cooperation with FWS to evaluate methods to increase the capture rate for females. NWRC has provided FWS with cowbirds for this endangered species project annually since 1980. Various local environmental groups and State and Federal agencies were involved in this project.

Double-Crested Cormorant Environmental Impact Statement—

A research wildlife biologist from the NWRC's Starkville field station and a WS Operational Support Staff Officer in Riverdale, MD, participated in the planning meeting for developing the double crested cormorant environmental impact statement (EIS). Although FWS is the lead agency responsible for the cormorant EIS, these WS representatives provided valuable inputs as the EIS management alternatives were developed in July 2000 in Arlington, VA. The cormorant EIS will enable FWS and WS to collaboratively evaluate various alternatives associated with the management of double crested cormorant impacts to commercial and recreational fisheries throughout the United States.

INTERNATIONAL COOPERATION

NWRC–German Forest Research

Collaboration—Damage inflicted by ungulates and rodents upon forest resources in Europe is similar to that found in the United States. At the request of German university faculty members, an NWRC scientist visited the university and discussed possible collaboration. The scientist toured the campus and discussed training for students interested in forest sciences. Wildlife damage issues are taught as a significant part of the university curriculum. There was also an exchange of information on current research activities to develop methods to protect forest resources at the German university and at the NWRC Olympia field station. A plan was developed for selected German students to work in conjunction with NWRC to gain practical research experience. Possibilities were also discussed that could provide for a specialized curriculum at the German university that would permit wildlife damage-management students to conduct master's degree research with NWRC.

NWRC–Mexico Airport Collaboration—

A scientist from NWRC's Sandusky field station made his fourth trip to Mexico in November–December 1999 to assist aviation and university officials in evaluating bird hazards at existing airports and at proposed sites for a new airport. Bird species hazardous to aviation (such as waterfowl, raptors, and vultures) are common in the Mexico City region, and the Mexican Government wants to ensure that the existing MCIA and the proposed new MCIA are designed and managed to minimize attractiveness to birds.

The NWRC biologist conducted a bird population census in wetland, agricultural, and landfill areas throughout the Mexico City Valley and made recommendations that would both minimize bird strike hazards at the proposed airport sites and develop and enhance important wetlands away from the proposed sites. In addition, he also surveyed and made recommendations for reducing wildlife hazards at airports in Guadalajara and Los Mochis.

Such advance planning and surveys are essential for developing environmentally sound and efficient bird-hazard reduction programs for airports. Bird–aircraft collisions cost the aviation industry well over \$1 billion annually worldwide. Bird strikes are of particular concern in Mexico City because of the high elevation (about 7,400 ft) of the existing and planned airport sites.