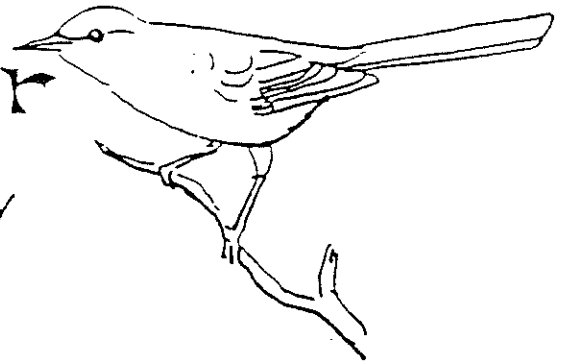


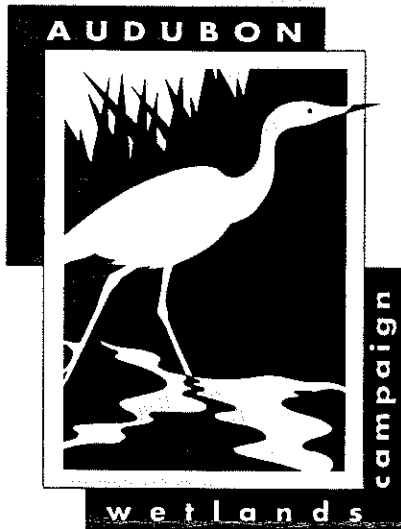
# The Gnatcatcher



JUNIATA VALLEY AUDUBON SOCIETY

APRIL 1994

APRIL PROGRAM: WETLANDS RESTORATION



The speaker at our annual JVAS banquet will be Dr. Thomas Dick, former president of the American Littoral Society and founder of the Allegheny Plateau Audubon Society. A spectacular slide show of that Audubon Chapter's restoration of the Dunning Creek wetlands in Bedford County will be presented. As a preview of Dr. Dick's program, we have included on pages 2, 3, 4, and 5 of this newsletter an article about this ecological restoration project by JVAS director Marcia Bonta. The article originally appeared in Pennsylvania Wildlife, vol. XIV, no. 2 (March-April 1993), pp. 15-18. This will definitely be one of our finest programs and is absolutely a "must see" event!

Our banquet once again will be catered by Anne's Towne Dairy of Hollidaysburg and will feature roast turkey with filling, mashed potatoes, corn, green beans, tossed salad, rolls, coffee, punch, and desert all for the paltry sum of \$12.

Reservations are mandatory if you plan to join us for this gala event. Simply fill out the reservation stub below and send it to Amy King, 3021 W. Chestnut Ave., Altoona, PA 16602. Make checks payable to the Juniata Valley Audubon Society. All reservations must be received by April 12.

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PLEASE RESERVE \_\_\_\_\_ PLACE(S) FOR ME AT THE ANNUAL JVAS BANQUET TO BE HELD IN FORT ROBERDEAU'S WHITE OAK HALL ON TUESDAY, APRIL 26, AT 6:30 PM. AT \$12 PER PERSON, I ENCLOSE A CHECK FOR THE AMOUNT OF \$ \_\_\_\_\_.

NAME \_\_\_\_\_ PHONE \_\_\_\_\_

ADDRESS \_\_\_\_\_

Mail to Amy King, 3021 W. Chestnut Ave., Altoona, PA 16602. Phone: 942-7673

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## NORTH AMERICAN MIGRATION COUNT by Stan Kotala

This year's North American Migration Count will take place on Saturday, May 14. This is a nationwide census of migrating birds conducted on a county level. Last year, Janet DeMuth, Melissa Focht, Dave Gobert, Bill King, Alice and Stan Kotala, John Salvetti, and Beryl and Al Sternagle managed to accumulate 102 species for Blair County! We hope to have even more participants, both human and avian, this year! The official NAMC checklist will be included with next month's Gnatcatcher. If you do any birding in Blair County on Saturday, May 14, just fill in the checklist and send it to me at RR 3, Box 866, Altoona, PA 16601. If you have any questions, call me at 946-8840.

Suppressed for decades by a misplaced farming operation, the wetlands at Hidden Acre Farm now support a bumper crop of wildlife.

# Wetlands lost and found

By Marcia Bonta  
Photos by Bruce Bonta

The U.S. Fish and Wildlife Service's goal is to restore 20 million acres of privately-owned wetlands by the year 2000. Tom and Sally Dick's 170-acre Bedford County farm is a good start.

Fighting to save remnants of the natural world here and there quickly loses its appeal. How much better to take the offensive, to do something positive. With this thought in mind, Tom and Sally Dick bought a failed, 170-acre farm in Bedford County.

It was originally ditched and drained to raise cantaloupes and watermelons back in 1926. Later owners tried to grow grain such as corn. But despite their best efforts, the land was often too wet to harvest. Eventually, like many farms on marginal land, it was abandoned in the late 70s.

According to the Dicks, when they first purchased the land it was totally exhausted. But they wanted to create and restore wildlife habitat on the property which they named Hidden Acre Farm. Specifically they were interested in wetland restoration.

As founder of the Johnstown-based Allegheny Plateau Audubon Society and former president of the American Littoral Society, Tom Dick understands the value of wetlands as wildlife habitat. For instance, 70 percent of Pennsylvania's threatened and endangered species require access to wetlands at some point in their lives, including five species of turtles, two of frogs, three of salamanders, four of fish and eight of birds. Dick also knows that Pennsylvania has lost 56 percent of its wetlands since European settlement, and that between 1956 and 1979 alone, 28,000 wetland acres were destroyed.



Most of the losses have occurred on private land which was traditionally converted for agricultural use but more recently for both private and industrial development. Land that has already been drained, filled and built on is permanently altered. But land drained for agricultural purposes is easier to restore. Easier, in fact, than Dick had thought in even his wildest dreams.

His first step was to contact the United States Fish and Wildlife Service about their innovative Partners for Wildlife program. Designed to help willing private landowners restore fish and wildlife habitat primarily by restoring wetlands, their goal is the restoration of 20 million acres of privately-owned fish and wildlife habitat by 2000. Although the Fish and Wildlife Service has continued its interest in acquiring key wetland areas and in encouraging states and conservation organizations to do likewise, it recognizes that three-quarters of the remaining wetlands in the United States are privately owned.

But ownership is changing and so is the agricultural industry. Wetlands—which include bogs, marshes and swamps—are no longer considered worthless commodities. Many landowners realize that they help control erosion and flooding, filter out pollutants and sediments in drinking water, and provide irrigation water during droughts, in addition to providing optimum wildlife habitat. Some new landowners, such as the Dicks, buy land just to help wildlife. Others, both old and new landowners, want to make a reasonable profit from their land but are also interested in the benefits of wetland ownership.

The beauty of the Partners for Wildlife program is its simplicity. Usually at no cost to the landowner, the Service does the necessary work. In return, the landowner must agree to keep the wetlands in their natural state for at least 10 years. On the Dicks' land that meant blocking off the drainage by breaking up tile drains and plugging open ditches and then constructing dikes across open ditches and old cornfields. The bulldozer work was done by a private contractor and Erie National Wildlife Refuge experts. The biologist who designed the project, Dennis Brown of the U.S. Fish and Wildlife Service office based in State College, says that he "tried to get as much diversity as possible" in designing the five dikes they eventually built, three of which are controlled by gates and two of which are natural. To attract migrating shorebirds, one can even be drawn down to simulate mudflats.

The first two dikes were finished in October of 1991, one of the driest years on record. But the hydric soil that characterizes a wetland even when it is dry had never changed and two months later the impoundments were full. By late February the new wetlands had been discovered by 17 species of migrating waterfowl including tundra swans, mallards, black ducks, pintails, gadwalls, green and blue-winged teal, wigeon, hooded and red-breasted mergansers, ring-necked ducks, bufflehead and scaup. In March the mudflats attracted migrating



**Landowner Tom Dick (right) explains his wetland restoration project to FWS Director John Turner who toured Hidden Acre Farm last year.**

shorebirds which "dropped down like magnets," Dick says. In addition to "sandpipers by the hundreds," they also identified black-bellied plovers, dunlins, sanderlings, semipalmated plovers, common snipe, short-billed dowitchers and ruddy turnstones; more shorebirds, in fact, than nearby Shawnee State Park with its dammed lake.

Unlike artificially-constructed lakes or ponds, however, which historically resulted in a net loss of vegetated wetlands in Pennsylvania, wetlands are characterized by changing, but low, water levels, including dry periods, so the impoundments were designed to contain water with an average depth of 18 inches or less. The idea is to imitate nature as much as possible by encouraging natural fluctuations in water level and the growth of wetland plants as food and cover for wildlife.

But the Dicks did more than encourage

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the growth of wetland plants. They held two spring planting days. Thirty-five volunteers from the Allegheny Plateau Audubon Society, Fish and Wildlife Service including designer Brown and his family, DER, Ducks Unlimited of Bedford County, Sierra Club, American Littoral Society, friends and local landowners pitched in and planted 7,000 trees, shrubs, and aquatics including cattails, sago pondweed, burreed, hardstem bulrush, duck potato, alder, willow, buttonbush, water iris, pickerelweed and three sedge species. Most of the aquatic plants were "rescued" from farm ponds, stripmine sedimentation ponds and aquaculture projects in Pennsylvania and Wisconsin. Interested friends and neighbors also donated other plants and trees such as false partridgeberries, dogwoods, marsh marigolds, crabapples, hawthorns and evergreens. Altogether they covered 70 acres with new vegetation. In addition, they erected kestrel, wood duck and bluebird nesting boxes—again built and given by friends—and mapped out a butterfly garden. Then they waited.

To their amazement, 80 percent of the plants survived. Even more surprising, though, were the wetland plants that germinated on their own—water plantain, water parsley and spikerush—from seeds that had presumably lain dormant during the long, drained period. By June the restored wetland was swarming with wildlife, most notably 17 species of dragonflies, green, leopard and bullfrogs, painted and snapping turtles, and

35 nesting bird species. The latter were not just the normal run of nesting birds but included *three* species of special concern—common snipe, pied-billed grebes, and the state-endangered sedge wrens.

Suddenly, last June, Hidden Acre Farm became a mecca for birders from all over the state, since sedge wrens had not been seen in Pennsylvania for several years. Of course, it could be that few wetlands are as carefully monitored as the Dicks' farm. Audubon members had first documented the number of bird species on 100 acres of open fields there. Once the impoundments were in place they started a new list which covered January through June of 1992. In that time bird species' diversity had increased 56 percent. But there is no doubt that sedge wrens like to make ball-like nests in wet meadows and that wet meadows (and sedge wrens) have been declining.

Exuberant about the quick success of their project, the Dicks organized a wetland restoration tour of their place for federal, state and county officials as well as selected

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members of the media. Fifty people came, including Director John Turner and North-eastern Regional Director Ronald E. Lambertson of the Fish and Wildlife Service, State Conservationist Richard Duncan of the Soil Conservation Service, and Peter Duncan, executive director of the Pennsylvania Game Commission. All of them were enthusiastic about the project, agreeing with Lambertson that it "showcased the results of cooperative efforts between public and

private organizations and proved that drained farm fields could easily be restored to productive wetlands." As part of the ceremonies, Turner presented a special conservation award to the Dicks and Peter Duncan presented the PGC's Senior Wildlife Conservation Award to Turner.

But the real star of the show was the wetland itself, and everyone took the tour. The oldest impoundment looked as if it had been in place forever, its edges and small islands crowded with aquatic plants. As Turner, Duncan and other officials trailed behind Dick, a sora rail took off at his feet almost as if it had been coached. Ducks flushed from the cattail cover. A cock pheasant ran off, protesting loudly. The water itself, when Sally Dick dipped up a test tube full, swarmed with plankton. According to Dick, creek chubs, large minnows in the genus *Semotilus*, had recently turned up in the impoundment. Dick also said that several wood ducks had nested along nearby Dunning Creek and had then moved their ducklings to the impoundment for food and cover. Mallards had produced 50

**Nest structures for mallards (shown), kestrels, wood ducks and bluebirds were erected by friends and neighbors eager to pitch in. With so much top-quality habitat at their disposal, the mallards preferred nesting in cattails.**



ducklings, and on that day the cattails rustled with them.

Dick recalled for us his neighbors' reactions when he told them he was going to restore the wetlands. "They were not happy. They thought we were putting in a swamp and were upset at such a waste of good land. But that completely reversed itself when they saw the results." It also raised their property values. One neighbor had to pay developer prices to buy land that overlooks the wetland. That same neighbor is now eager to have his own restored wetland. Other advantages to the neighbors include flood control along Dunnings Creek and drought mitigation because of groundwater recharging.

Not only has the Dicks' project educated the neighbors about the value of wetlands but also the host of birders, teachers, school children, college students and tourists the Dicks have encouraged to visit. Hidden Acre Farm is now serving as an outdoor laboratory for environmental education in the Bedford School system and as a site for field limnology classes at the University of Pittsburgh at Johnstown.

That, it turns out, is just the beginning. Raising and releasing bobwhite quail, increasing woodcock habitat, long term monitoring of insects and plants as well as the birds, are just a few of the projects this wetland restoration has already inspired. Altogether, as Dick says, it has been a "totally upbeat, positive and exciting project."

A week later, after the hoopla was over, our family revisited the wetland. We were the only visitors on a quiet afternoon and were treated to closeup views of a spotted sandpiper poking in the mudflats and a green-backed heron skulking in the vegetation. Looking over the transformed landscape, we marveled at what a positive spirit and dedicated volunteers, coupled with the expertise of professionals and the resiliency of nature, could accomplish in such a short time. With such a positive example, we can hope that more private landowners see not only the value of restoring wetlands, but of treasuring whatever intact wetlands they might already have on their property. -w-

## Partners for Wildlife: Let the Feds add water and nature does the rest

Here in Pennsylvania the Fish and Wildlife Service's Partners for Wildlife program works in partnership with the Pennsylvania Game Commission, the Soil Conservation Service, the County Conservation Districts, and other conservation organizations in restoring wetlands through the Pennsylvania Wetland Restoration Program. Any private property owner can be a partner—farmers, city dwellers, local agencies, private organizations, corporations, government agencies and educational institutions—and can get advice and technical assistance in habitat restoration, management, and protection. Although the Fish and Wildlife Service provides funding, equipment and personnel to participate in all phases of the program from public relations to site identification, design and construction, they are also receiving some funding, personnel, equipment and supplies from the Pennsylvania Game Commission and are actively pursuing other sources of funding and assistance from such organizations as Ducks Unlimited and the Ruffed Grouse Society.

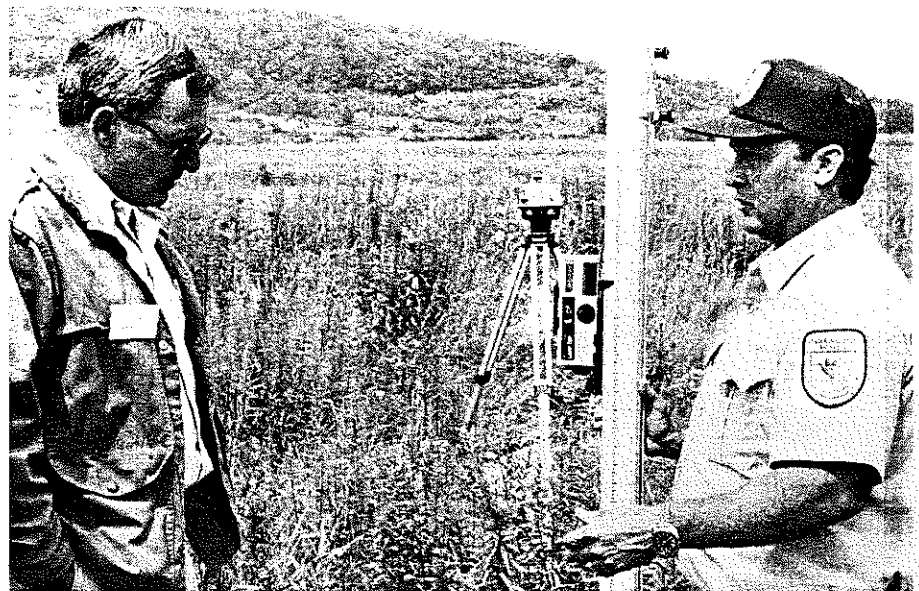
They are only interested in restoring sites that were wetlands and have had their hydrology changed through ditching, tiling, or stream relocation; for instance, sites identified by the Soil Conservation Service as prior converted cropland (PC). Their general goal is to create diverse wetlands with one-third in shrubs, one-third in emergent vegetation and one-third in shallow water. Larger sites are more economical to restore, but small projects can be clustered to reduce the cost per acre. The program has only been in place in Pennsylvania a little over a year, and, as of September 1992, they already had 300 requests from interested landowners, according to designer Dennis Brown.

The landowner agreement allows the Fish and Wildlife Service, its contractors and cooperators to enter the landowner's property and do what is necessary to restore wetlands. The landowner, in turn, must agree not to remove any structures placed on the property by the Service for at least 10 years, but they are requiring longer time periods for larger projects. Such agreements, however, are flexible and can be customized to fit each project.

In addition to the Dicks' restoration, as of June 1992, 17 other restorations had been completed in the commonwealth including projects in York, Cumberland, Centre, Huntingdon, Jefferson and Crawford counties and many more were in the planning or construction stages.

If you are interested in learning more about wetland restoration in Pennsylvania or becoming a Partner, contact the State College field office of the U.S. Fish and Wildlife Service at (814) 234-4090. They can also direct you to the wetland restoration nearest you so you can see for yourself.

**Dennis Brown (right), of the U.S. Fish and Wildlife Service, designed five dikes for the project. Here he explains the work to Pa. Game Commission Executive Director Pete Duncan.**



BI-LO / RIVERSIDE RECEIPTS

Bi-Lo and Riverside receipts are being collected by Anne Borland, 138a Larch St., Hollidaysburg, PA 16648. Our chapter obtains significant funds from the receipts that you send to Anne. Let's all save those receipts and send them in!

JVAS BOARD MEETING

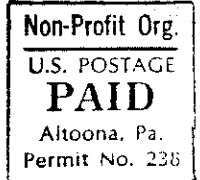
Our next board meeting will be at the Altoona Public Library on Thursday, May 5 at 7 PM. All members are welcome!

"In the country, as in people, a plain exterior often conceals hidden riches, to perceive which requires much living in and with. Nothing is more monotonous than the juniper foothills, until some veteran of a thousand summers, laden blue with berries, explodes in a blue burst of chattering jays. The drab soggi-ness of a March cornfield, saluted by one honker from the sky, is drab no more."

Aldo Leopold, A Sand County Almanac, 1949

THE DEADLINE FOR THE MAY GNATCATCHER IS MAY 1. Please submit articles to the editor, Stan Kotala, RD 3, Box 866, Altoona, PA 16601.

JUNIATA VALLEY AUDUBON  
P.O. BOX 2378  
ALTOONA, PA 16603



Charles Hoyer  
P O B 32  
TYRONE, PA 16686