

Philadelphia Larus



the newsletter of the Delaware Valley Ornithological Club

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Just How Do Area NWRs Manage?

by MEGAN EDWARDS

At the Edwin B. Forsythe National Wildlife Refuge in Brigantine, N.J., a huge wall of pale russet sand snakes across the black mud of the refuge's western impoundment pond, its length sprinkled with bulldozers, backhoes and immense dump trucks.

At Bombay Hook NWR near Smyrna, Del., a pond long known as a favored stopover for migrating shorebirds lies nearly empty, its 95 acres consisting mostly of cracking, sunbaked dirt.

At the John Heinz NWR at Tinicum, on the border between Philadelphia and Delaware counties, yards of bright-orange plastic webbing surround plots of marsh plants not far from where spatterdock rises from a drawn-down impoundment pond.

What's going on here? Why all the changes in three of the national wildlife refuges closest to Philadelphia? According to wildlife biologists and refuge directors overseeing aspects of the various projects, the changes are necessary to maintain and/or improve the quality of refuge habitats, particularly impoundments.

When Brigantine's impoundment ponds were created some four decades ago, they were designed to provide suitable habitat for a variety of species, particularly migrating birds, said refuge manager David Beall. That habitat has dwindled in the years since, he added. In the refuge, some loafing and feeding areas have disappeared.

Initially, the refuge's two impoundments were both freshwater pools, Beall said. A steadily shrinking supply of fresh water made it increasingly difficult to maintain two such pools, though, so the east pool was eventually converted to a brackish impoundment — a mixture of fresh and salt water.

Now, Beall said, even the remaining freshwater pool is in trouble, done in by a combination of insufficient water supplies and changing pool-bottom profiles.

*Come August, and
Raymond Pool's as
dry as a roadrunner's
toenails. Why don't
'they' do something,
we gripe as shorebirds
fly over our heads.
Refuge personnel
respond: It's just
not that simple.*

"It has become difficult, if not impossible, to maintain the water levels," he said.

One problem, he said, is increasing residential development in the area around Brigantine. As new wells are dug, the water table drops and the water flow in the small creek that feeds into the refuge steadily declines, Beall explained. Now, he said, the refuge must depend primarily on rain water to restore water levels in the pools.

To help remedy the situation, the refuge is in the midst of a massive two-year, \$400,000 project. The freshwater west pool will be cut in half, creating a smaller freshwater pool (with an improved bottom profile) and a large moist-soil area. Nearly 4,000 feet of levees have been constructed, with another 3,000 feet still to come.

The project, originally expected to be completed in November 1994, is somewhat behind schedule. The substrate under the pool has proved to be less substantial than anticipated, Beall said. Much of the sand added to the levee simply vanished into the substrate.

When the new dike is completed, the resulting west pool will be roughly half the

size of its 1,500-acre predecessor, Beall said. Its smaller surface area will help to reduce evaporation while still providing sufficient habitat for freshwater species, he said.

The new moist-soil area will be drawn down for much of the year to encourage plant growth. Shallow areas of standing water will provide habitat for frogs and other species, while the plants themselves will provide shelter for myriad invertebrates.

"While it's a different type of habitat, we'll have a greater variety," Beall said.

New water-control structures on both the east and west pools will allow for better control of water levels, the refuge manager explained. The structures may prove important for disease control, as well. If avian botulism or some other contagious disease were to crop up at the refuge, water levels could be dropped quickly to make the area unattractive to passing migrants, he said.

Bombay Hook, too, is replacing the water-control structure on Raymond Pool, the refuge's oldest impoundment, according to Frank Smith, a wildlife biologist at the refuge.

The new structure will allow refuge managers to better regulate water levels in the 95-acre pool, Smith said. Typically, water is released from the impoundment into an adjoining salt marsh during the summer. The draw-down encourages invertebrate growth in the pool, and that growth attracts substantial numbers of migrating shorebirds.

"Of all our impoundments, it's probably the most favorable for shorebirds," Smith said. "And not only is it a good place for shorebirds, it's also a good place for the public to see them."

Raymond Pool attracts both "regulars" — such as Semipalmated Sandpipers, Semipalmated Plovers, both yellowlegs and American Avocets — and rarer species,

(Continued on Page 4)

PROGRAMS

Meetings are held the first and third Thursdays of the month, at 7:30 p.m., at the Academy of Natural Sciences, 19th St. and Benjamin Franklin Parkway. For information on programs, call Sandy Sherman, 610-237-6814 (home) or 215-893-5739 (work).

Parking is available at the Logan Square Parking Garage, 1815 Cherry St., for \$4. This indoor, patrolled lot is between 18th and 19th Streets, with entrances on both Arch Street and Cherry Street. To park at this rate, you must have your parking ticket validated by a guard at the Academy.

JAN. 20, 1994 — DR. CHRISTOPHER THOMPSON, "Color Patterns in Birds and Their Adaptive Significance." The temporary collections manager in ornithology at the Academy, Dr. Thompson is on loan from the Department of Zoology and Burke Museum of the University of Washington in Seattle, where he is a post-doctoral student.

FEB. 3, 1994 — RICHARD CROSSLEY, "Birding in the Land of the Rising Sun." Crossley, British birder and champion of Cape May's passerines (as relayed in Jack Connor's *Season at the Point*), will discuss his birding escapades while living in Japan for two years.

FEB. 17, 1994 — DR. KEITH BILDSTEIN, "What a Difference a Day Makes: Hurricane Hugo's Catastrophic Effect on the White Ibises of Coastal South Carolina." Dr. Bildstein, director of research at Hawk Mountain Sanctuary, will use his 14-year study of a breeding colony of White Ibises near Georgetown, S.C., to demonstrate the importance of such long-term studies and how they can be used to predict the impact of catastrophic events on populations of birds.

MARCH 3, 1994 — ED KWATER, "Shorebird Identification." Yet another birder who speaks British, Kwater was "iced out" in his attempt to address the club a year ago. Now living in western Pennsylvania, he will help us sort out the fine points and distinctions among the peeps and waders.

MARCH 17, 1994 — SIDNEY LIPSCHUTZ, "Natural and Unnatural Nature Photography." With a long list of slides to his credit in the Academy's Project VIREO, club member Lipschutz will prove that when the wildlife won't cooperate in the wild, sometimes a zoo will do.

APRIL 7, 1994 — DR. FRANK GILL, "DNA-DNA Hybridization for the Non-Professional." The head of the Academy's Ornithology Department and one of DVOC's most distinguished members, Dr. Gill will give us a sneak preview of his lecture at the June convention of the American Birding Association. He will explain the process and rationale behind DNA-DNA hybridization and interpret the significance for both scientists and birders.

APRIL 21, 1994 — PAT AND CLAY SUTTON, "The Mystery of How to Spot Owls." The Suttons, DVOC members and frequent lecturers here, are the authors of a book due to be published in March, *How to Spot an Owl*. They will share their field techniques with us, through anecdotes and excellent slides.

MAY 5, 1994 — DR. HUGH MAINZER, "In the Field With Lyme Disease." Dr. Mainzer is an epidemic intelligence service officer with the U.S. Center for Disease Control and Prevention in Atlanta. Currently assigned to Pennsylvania's Bureau of Health in Harrisburg, he will explain all

those recent sightings of high socks in the field.

MAY 19, 1994 — PETER STANGEL, "Partners in Flight: Working Together for Migratory Bird Conservation." Stangel is director of the Neotropical Migratory Bird Conservation Initiative for the National Fish and Wildlife Foundation in Washington. He will discuss his work with the umbrella organization Partners in Flight.

JUNE 2, 1994 — MAY RUN REPORTS. Results of our May days in the field, with or without high socks.

JULY 7, AUG. 4 and SEPT. 1 and 15 — Informal summer meetings, 7:30 p.m.

FIELD TRIPS

EDITOR'S NOTE: As of March, Tom Bailey will take over as field trip chairman from Earl Harrison, who has done a great job and deserves our thanks. The Pocono and Montauk trips will have passed by the time you read this; that leaves the following:

Saturday, Feb. 12, 1994: Shark River, N.J., A joint trip with Silver Lake Nature Center. For information, call Bob Mercer, 215-785-1177 (work).

Saturday to Monday, Feb. 19 to 21, 1994: New England Weekend. Meet at 1 p.m. on Saturday at Salisbury Beach State Park in Massachusetts. Accommodations available at Best Western Seabrook Inn, 800-528-1234. Leader: Earl Harrison, 215-991-8287 (work) or 215-628-4177.

For information on future trips or for a copy of the new schedule, contact Tom Bailey, 87 Wyndham Place, Robbinsville, N.J. 08691; 609-426-4727 (home) or 908-758-4402.

SAVE A STAMP,
PAY YOUR DUES

Don't wait for the treasurer to send you a notice. Your \$15 annual dues can be paid at meetings or by mail to:

Barbara Haas
DVOC Treasurer
2469 Hammertown Rd.
Narvon, PA 17555
717-445-9609

Note new area code. Also, please send all address changes to Barb, too. Life membership remains at \$225.

Philadelphia Larus

Send information you would like considered for publication in Philadelphia Larus to:

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215-893-5739 (work)

Rufe's slate nails down elections

Judge W. Hart Rufe III took possession of an additional gavel as he was elected president of the Delaware Valley Ornithological Club for 1994 at the club's Annual Meeting on Jan. 6.

Sandra L. Sherman was elected vice president and program chair, and Donald Jones became secretary. Re-elected treasurer was Barbara M. Haas.

Newly chosen to Council, the organization's governing body, for three-year terms were Alan Brady, a past president of the club, and Dr. Erica Brendel. They join Robert Mercer and Naomi Murphy, whose terms expire in January 1995, and Ron French and Phillips B. Street, also a past president, who will remain Councillors until January 1996.

As immediate past president, Dr. John J. Harding remains on Council, as does Franklin C. Haas, editor of *Cassinia*.

Special honors were accorded two club members at DVOC's Annual Banquet on Nov. 18. Sharing this year's Witmer Stone

Award, presented for the publication of a paper that embodies the results of ornithological research not conducted as part of professional duties, were Edward D. Fingerhood and Dr. George B. Reynard.

Fingerhood was honored for his chapter, "History of Pennsylvania Ornithology," in the *Atlas of Breeding Birds in Pennsylvania*, published in late 1992. He also contributed the species accounts for 16 former nesters in the state.

Reynard was honored as lead author of "Taxonomic Revision of the Greater Antillean Pewee," published in the June 1993 issue of the *Wilson Bulletin*.

The Julian Potter Award for outstanding field work was presented to Michael O'Brien for his efforts in distributing and posting bluebird boxes in the Pennsylvania-South Jersey area.

Sherman chaired the Stone Award Committee, and William R. Stocku chaired the Potter Award Committee.

Testing your skills: What bird . . .

The following quiz is excerpted from portions of a test once used by longtime member Quinton Kramer in classes he taught at the Academy of Natural Sciences.

The test resurfaced this fall during slow times at Militia Hill Hawkwatch, when Ruth Pfeffer brought it out for the amusement of all. She received it from Charlie Wonderly, who was given a copy by Quinton's wife, Evie.

For example: What bird is a letter? Answer: Jay. So, . . .

What bird . . .

1. is forbidden?
2. is acrid?
3. is sleepy?
4. is lame?
5. is Josephine?
6. is all out of breath?
7. is a malacologist?
8. is a derrick?
9. is a decoy?
10. is a sweater?
11. is a poor boxer?
12. is heavenly humor?
13. is a member of the KKK?
14. had a husband named Charles William?
15. might play outfield in the Little League?
16. might be found in a royal bar?
17. is a system for identification of pigeons?
18. is a card game?
19. has 144 bills?

20. is a jogger?

After playing the game, Chris Walters and his wife, Teri Simon, added a few more gems:

What bird . . .

1. has stopped eating a tropical fruit?
2. hails from Greenwich Village?
3. is the jewel in the tiara?
4. is what every fat turkey becomes at Thanksgiving?
5. is a Main Line matron prone to telling fibs?
6. is the most anti-social of singers?
7. has its office in City Hall?
8. Conceals its lack of intelligence by appearing only at Halloween parties?

And while we're in the mood for quizzes, here are two totally unrelated questions:

1. What bird found in North America has two color phases — but only among females of the species?

2. According to the checklist "Wildlife of Arapaho National Wildlife Refuge," a sagebrush area in north-central Colorado northwest of Rocky Mountain National Park, only one bird species is considered "abundant" in winter, and only four species are listed as "common." What are they? Hint: European Starling is listed as "rare," House Sparrow is not considered present in winter and Rock Dove isn't even on the checklist.

(Answers on Page 4)

Book Review

Studying the Birds at New Cape May

by SANDRA SHERMAN

Not since DVOC founder Witmer Stone's 1937 *Bird Studies at Old Cape May* has this South Jersey county's bird life been given such a thorough presentation as David Sibley's new *The Birds of Cape May*.

Sibley is both author and illustrator of this book, published by the Cape May Bird Observatory, with additional illustrations by club member Louise Zemaitis and Julian Hough.

The book treats all of Cape May County, with special emphasis on "Cape Island," or that area we know as "south of the canal." Besides an introduction to birding the county, Sibley lists all of the usual spots, with directions and most likely species in season.

The species accounts cover records up to Dec. 31, 1992. There are separate sections for rarities, hypotheticals and exotics — and a "wish list" of 69 species "reliably recorded within 100 miles of Cape May County."

Sibley got his wish for at least one of those: Among the 69 species is Lark Bunting, which showed up this fall. And the Whiskered Tern, found here in July for a

first North American record, was was not even on most people's "dreamed-for list" (although Kenn Kaufman had predicted it would show up somewhere on the continent soon).

Among Sibley's references are past copies of *Cassinia*, DVOC's biennial journal. Records of rarities (recorded less than once every two years since 1980) often credit the finders, and many members' names crop up here: Barber, Brady, Brethwaite, Choate, Cutlers, Danzenbakers, Driscoll, Dunne, Guris, Kramer, Lipschutz, Livingston, Mears, Mellon, Mills, Murphys, Russell, Seager, Stocku, Stone, Suttons, Ward, West, Zemaitis.

(I wouldn't be surprised if there are members out there who will take exception to a late date, an "only" sighting, etc., but who never shared detailed descriptions with *Cassinia* or *Records of New Jersey Birds*. On the other hand, did the author ever request information directly from the club, via a letter or appearance at a meeting?)

A section of bar graphs lists early and late dates, as well as individual out-of-season records. Sibley broke out all rarities and

created a separate set of bar graphs.

Sibley's research points up many of the changes in bird life since Stone's time, as noted in the foreword by Paul Kerlinger, CMBO director. Besides new migrating and breeding species being confirmed, for example, records indicate migration of passerines begins in July and Saw-whet Owls winter in great numbers in the Cape May area.

Clearly, the information Sibley has gathered is valuable to many of us, whether we are researchers studying North American bird migration or simply birders looking for the best time to find a particular rarity.

With the right computer programs and a spell-checker, anyone can become a publisher these days. While this trend might put editors out of business some day, that doesn't mean that publications availing themselves of this method don't suffer from it. This book could have used a professional editor or, at the very least, someone who knows that commas don't substitute for periods.

The Birds of Cape May is currently available only through CMBO. For information, call the office at 609-884-2736.

How Do National Wildlife Refuges Manage?

(Continued from Page 1)

The decades-old impoundment at Tinicum — really an artificial watering hole — is plagued by a combination of alien plant invaders and natural succession, according to refuge manager Dick Nugent.

including Hudsonian and Marbled godwits, White-rumped Sandpipers, Ruffs and the occasional Curlew Sandpiper.

Although the pool's present water-control structure is old, it was not to blame for the arid conditions that were to be found in the impoundment in late summer and early fall, Smith said. Raymond Pool, unlike the other impoundments within the refuge, is fed solely by rain water.

"All we can say is it hasn't rained," Smith said at the time. A new structure "wouldn't have helped us get water in. Usually in the fall, we're dependent on tropical storms to help restore water levels."

Though tidal water from the salt marsh can be let into the pool, refuge managers seldom take that step, Smith said. The water from the marshes leaves salt deposits behind as it evaporates, he said, and those deposits can build to problematic levels.

In addition to its impoundment work, Bombay Hook is also developing nine small moist-soil wetlands within the refuge's agricultural areas, Smith said. Built on those fields with the lowest elevation and the least productivity, the wetlands will function as temporal ponds — filling with rain water and runoff during the fall and winter and drying out during the summer. These areas, which Smith said take a considerable amount of time and effort to develop, will attract mostly migrating and wintering waterfowl, he said, though shorebirds and wading birds will also visit.

Tinicum's large impoundment pond has also undergone some growing pains. The artificial watering hole, which has been in existence for decades, is plagued by a combination of alien plant invaders and natural succession, said refuge manager Dick Nugent.

"As time passed, conditions changed," Nugent said. "If nature took its course, eventually [the impoundment] would become boggy — a swamp."

Over the years, silt has run into the impoundment, raising the elevation of the pond's bottom, Nugent explained. Less water collects in the impoundment now, and that water heats up faster, allowing mats of algae to form. The decay of such mats — and of the extraordinarily successful spatterdock plants that cover 90 percent of the pond's surface — adds to the buildup of mud on the pond's bottom and helps to create anaerobic conditions within the impoundments. Those conditions can mean death to many inhabitants of the pond.

Reversing that process will cost "mighty bucks," Nugent said.

Though such funds are not currently available, the refuge is trying to drive some of the plant invaders into retreat. *Hylobius transversovittatus*, a beetle that preys on the

alien purple loosestrife has been introduced on the refuge. The ongoing draw-down of the impoundment has been done in part to stress the water-loving spatterdock. Unfortunately, Nugent said, the spatterdock has not died off as quickly or thoroughly as expected.

"This has been kind of the 'easy out' for now," he said. "We knew it was going to be a Band-Aid solution. The experts say [spatterdock] is a tough cookie."

The lower water levels attracted higher than normal concentrations of shorebirds to the refuge during the late summer and early fall, Nugent said, including such species as Short-billed Dowitcher, Stilt Sandpiper and Baird's Sandpiper.

The refuge had expected to raise the water levels again in October to provide a way station for migrating waterfowl. But when avian botulism plagued the refuge for much of the summer, Nugent said, "we threw the water-management program out the window" and began the refilling process in late August. The additional rain water diluted the botulism bacteria, helping to clear up

the problem.

A second project at Tinicum, completed except for an ongoing monitoring phase, involves an 18-acre wetlands mitigation site along I-95. The newly restored marshlands are the result of a mitigation agreement struck between the federal government and the Pennsylvania Department of Transportation, which destroyed several acres of wetlands elsewhere during the construction of I-476, or the Blue Route. PennDOT agreed to restore the wetlands at Tinicum.

Nugent said the refuge is pleased with the success of the site so far. "We have nothing but praise for what's happened here," he said. "You go out there and you'll find anything you'd find in a tidal marsh."

The site is still being monitored for vegetative success. Nugent said the overall plant-survival rate must be 80 percent, a requirement causing PennDOT some difficulty. The problem is hungry deer and waterfowl, he said — they're eating everything in sight. Hence the orange net pens, which keep out the voracious munchers and enable scientist to determine the success of reintroduced species.

To date, Nugent said, the results have been heartening. In cells where two or three species were planted, monitors have discovered as many as 27 thriving.

"There are so many different species within some of those cells that they never expected to find," he said.

Though the projects under way at Tinicum, Bombay Hook and Brigantine may be frustrating for birders — causing traffic-flow changes or putting species farther from the roads, for example — their overall effects should be to increase the number and variety of wildlife species found in the refuges. And changes of that sort certainly can be tolerated!

Quiz answers

18. Rook [or Solitaire]
19. Grosbeak
20. Roadrunner
- PART II:**
1. Bananaquit
2. Bohemian Waxwing
3. Ruby-crowned Kinglet
4. Ovenbird
5. Long-billed Dowitcher
6. Hermit Warbler
7. Prothonotary Warbler
8. Masked Booby
- PART III:**
1. Eurasian Wigeon: Females have rufous and gray phases.
2. Abundant: Horned Lark. Common: Golden Eagle, American Crow, Black-billed Magpie and Rosy Finch!

- PART I:**
1. Barred Owl
2. Bittern
3. Noddy
4. Limpkin
5. Bonaparte's Gull
6. Puffin
7. Oystercatcher
8. Crane [or Oiltird]
9. Wood duck
10. Plover
11. Canvasback
12. Godwit
13. Hooded Warbler
14. Chuck-will's-widow
15. Least Flycatcher
16. King Rail
17. Dovekie