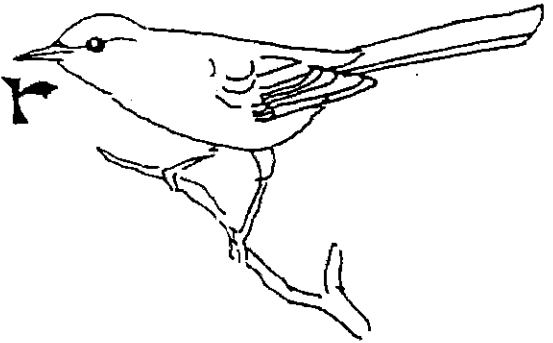


The Gnatcatcher



Newsletter of the Juniata Valley Audubon Society

P.O. Box 32, Tyrone, Pennsylvania 16686

Vol. 33, No. 7 – November 2001

More on the 'Bat Church'

Excerpted from the Summer Issue of WRCF's *Keystone WILDNotes*

Some of Pennsylvania's rarest bats have found summer sanctuary in an abandoned church near Canoe Creek State Park.

For years, the endangered Indiana bat had eluded scientists who sought to study their summer habitats in the Commonwealth. But Pennsylvania Game Commission biologists have discovered several dozen of the rare bats hanging out among more than 20,000 little brown bats in the church attic.

The discovery of the Indiana bats, mostly females nursing and rearing their pups in the church, upended the long-held view that the rare bats exclusively used trees for summertime roosts, shunning man-made structures.

"Not all tree bats will do that, and up to this time had been thought of pretty much as a tree bat," said Jerry Hassinger, a PGC biologist. "And now it has adapted. And if it has done that at one place, it might at another."

The discovery has the potential to add new strategies to the management toolbox used to help rebuild the severely reduced population of Indiana bats, both here and throughout their range, which includes most of the Midwest and eastern United States.

It is a huge dividend from a Wild Resource Conservation Fund investment. The WRCF bought the abandoned church, located adjacent to Canoe

[Cont'd on page 6]

— November Program —

"AN APPALACHIAN YEAR." JVAS past president and acclaimed nature writer, Marcia Bonta, will give a slide show/talk on her books, *Appalachian Spring*, *Appalachian Summer*, and *Appalachian Autumn*. Presently, she is working on *Appalachian Winter*. Her talk will cover birds, wildflowers, mammals, and scenes of winter — especially some of the hard winters of the early 1990s. Marcia will have books for sale and will sign any books you already may have purchased.

7 P.M., Tuesday, Nov. 13 in the chapel at Alto-Reste Park Cemetery, on Plank Rd., Altoona — across from Wal-Mart.

— November Field Trip —

PHIPPS CONSERVATORY AND BOTANICAL GARDENS. Enjoy Henry Phipps' "crystal palace," in Pittsburgh, one of the largest and finest botanical conservatories in the country. There will be a guided tour of the conservatory at 1 P.M. (if space is available) as well as time to explore on your own. Admission is \$6 per adult.

Saturday, Nov. 10. Meet trip leader Janet Huber at 9 A.M. at her office for carpooling to Pittsburgh. Phone Janet at 942-5752 or 944-5905 to sign up and for directions to her office. A guided tour will be at 1 P.M., as well as time to explore on your own. Admission \$6.

— Next Board Meeting —

Juniata Valley Audubon board members will meet at 7 P.M. at the Hoyer residence on Tuesday, Dec. 4. All Juniata Valley Audubon members are welcome. For directions, phone 684-7376 or send an e-mail message to <charma@nb.net>.

The Gnatcatcher

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Juniata Valley Audubon is a chapter of the National Audubon Society, serving members in all of Blair and Bedford Counties, and portions of Cambria, Centre, Clearfield, Fulton, and Huntingdon Counties.

Program meetings are held temporarily in the chapel at Alto-Reste Park Cemetery, Plank Road, Altoona (directly across from Wal-Mart) on the third Tuesday of the month in February, March, May, September, October, and November at 7 P.M. The public is invited to attend.

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From the Gnatcatcher's Nest

With the Holiday Season fast approaching, you may find yourself "up against the clock" regarding your gift-giving.

Here's a perfect solution! An Audubon membership is a wonderful gift for the holidays. Share your discovery of Audubon with friends, family, and co-workers. They will be reminded of your thoughtfulness throughout the year when a new issue of Audubon arrives.

For this special \$15 offer, giving an Audubon membership means that your Juniata Valley Chapter benefits directly from your gifts, no matter where the recipients live. For every gift, the National Audubon Society will send back the entire \$15 directly to Juniata Valley Audubon!

Just complete the special order form enclosed with this issue of *The Gnatcatcher* and mail to Audubon at the New York City address indicated. After Audubon receives your gift orders, gift cards will be sent to announce your gifts.

Gift membership orders must be received by Audubon no later than December 15 to receive credit for this special offer. Act now!

Charlie

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If you're reading this newsletter but are not an Audubon member, you're invited to join by mailing the coupon to:

Juniata Valley Audubon Society
Alice Goodlin, Membership Chair
R.R. 3, Box 127
Altoona, PA 16601-9207

You'll receive the bimonthly *Audubon* magazine, each one filled with superb nature photography and in-depth reporting on environmental issues. You'll also receive Juniata Valley Audubon's newsletter, *The Gnatcatcher*, containing articles on local conservation topics and nature themes.

AUDUBON Membership Application

YES, I want to join the Juniata Valley Audubon Society and the National Audubon Society at the special Introductory Rate of \$20.

As a senior citizen or student, I'm eligible to join for only \$15.

My \$ _____ check, payable to Audubon, is enclosed.

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CONSERVATION
**OR
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R**
By Mark Henry
Global Warming — It's for Real!

Earlier this year the National Academy of Sciences released a report on global warming titled, "Climate Change Science: An Analysis of Some Key Questions." This is an important document because, as the premier scientific organization in the country, the Academy has taken the position that global warming is "for real" and is not some nebulous theory. This clearly refutes those who claim that global warming is a "red herring" and there's nothing to worry about.

The report states that the accumulation of greenhouse gases is in fact causing a temperature change in the environment, and that the global increase in temperature is a direct result of the greenhouse gases generated through human activity. This human-induced warming will increase through the 21st century, and future generations will have to deal with the worst of its effects.

The Academy acknowledges that because we don't have all the information, completely accurate predictions cannot be made at this time. However, the Academy does state that warming *is* occurring and makes recommendations regarding further study and research in order to better predict the effects of global warming. For example, the report calls for additional research into the factors that determine atmospheric concentrations of greenhouse gases and aerosols. This, along with other research, will allow more accurate "warming" models to be developed and will give us a better understanding of what is happening.

Even with these uncertainties, the Academy has made several predictions regarding global warming, including:

- the consequences of such a temperature increase will be an increased tendency toward drought;
- along with drought there will be fewer storm events, and storm events that do occur will be higher in intensity;
- even in non-arid areas where the effects of drought won't be as pronounced, there will be in-

creased flash-flood events; and

- if the production of greenhouse gases is not reversed, the implications of global warming and climate change will be vast.

Why should we care? A gradual warming probably will mean the loss of "northern" species, but could mean the gain of more southern species. In Pennsylvania this may mean no net loss of species — just different species.

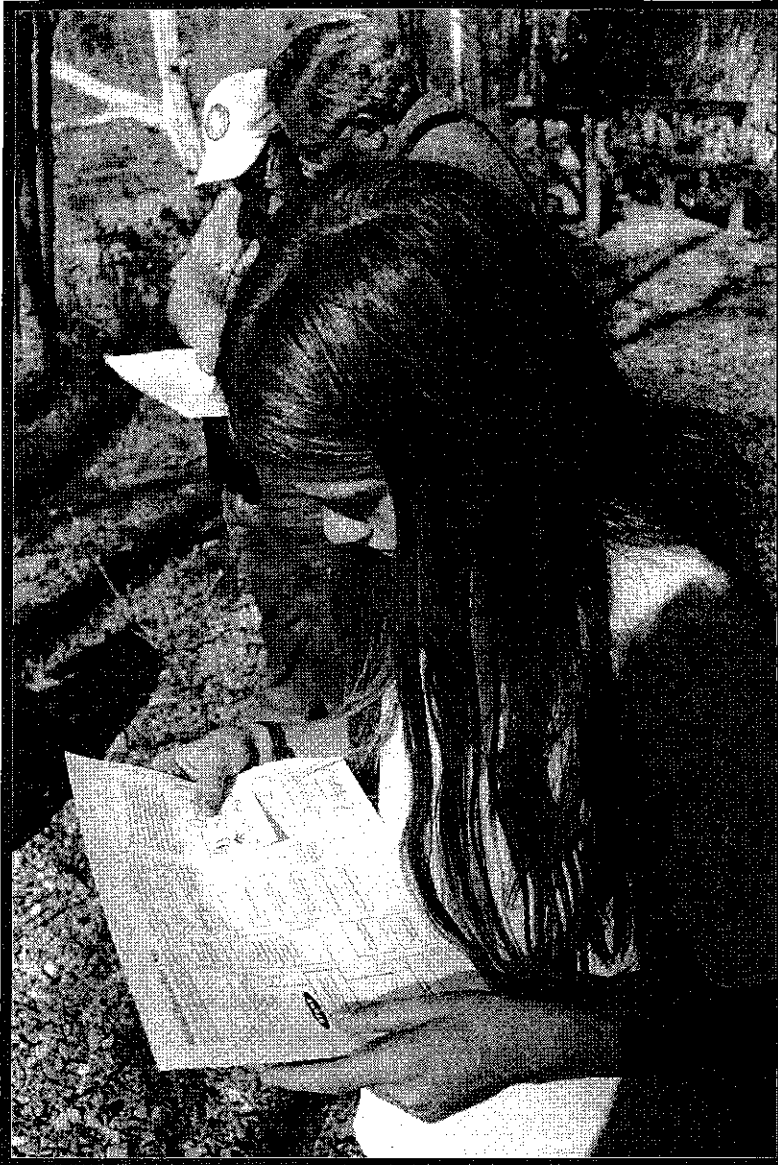
But what about those far-northern species, such as the polar bear, that depend on cold weather so that they can move out onto the ice pack to hunt food? What about endangered species, such as certain orchids that have very specific habitat requirements, and their habitat changes? Many scientists and conservationists fear that global warming will contribute to the unnecessary loss of biodiversity. Thus, global warming — along with sprawl, over-population, deforestation, and invasive species — will result in a great loss of biodiversity.

As conservationists, we must be concerned about global warming and our government's failure to act to curb greenhouse gases. And we need to be willing to act when and where appropriate. This includes educating our friends and neighbors, using energy wisely in our personal lives, writing letters to our local news media and/or our elected officials, and supporting relevant programs at local nature/environmental centers. We all can do something, and now is the time to do it. ❖

EDITOR'S NOTE: The complete Academy report can be found on the World Wide Web at <www.nap.edu>.

2001 Audubon Christmas Bird Count

This year the JVAS Christmas Bird Count will be on Saturday, December 15. JVAS Director for Ornithology Debbie Wentz again will compile the results. The bird-count area covers a 15-mile-diameter circle centered on the village of Culp, in Sinking Valley. After the count, a covered-dish supper will be at the Hoyers' residence. If you'd like to participate, contact Debbie by phone at 692-4224, by e-mail at <dtw1999@home.com>, or by snail-mail at 405 Lutz Ln., Port Matilda, PA 16870. ❖



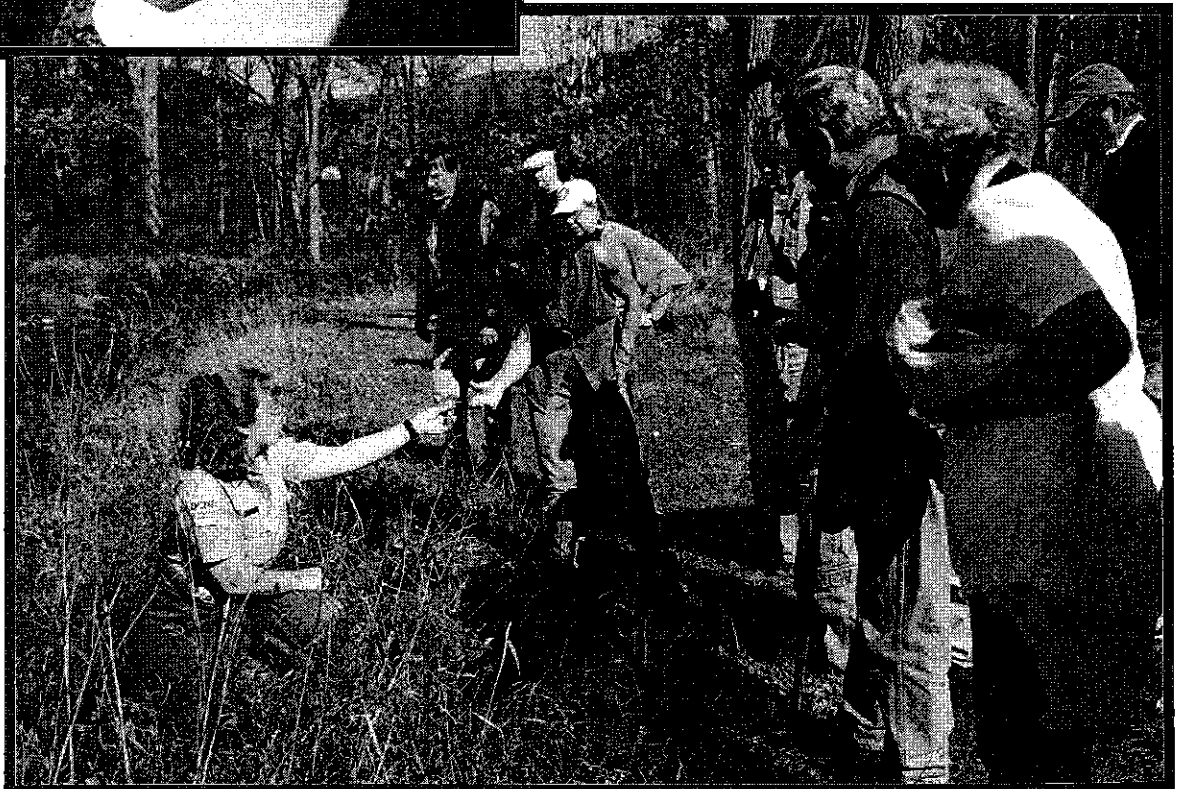
JVAS Field Trip To Beaver Pond Trail, Canoe Creek State Park

OCTOBER 21, 2001

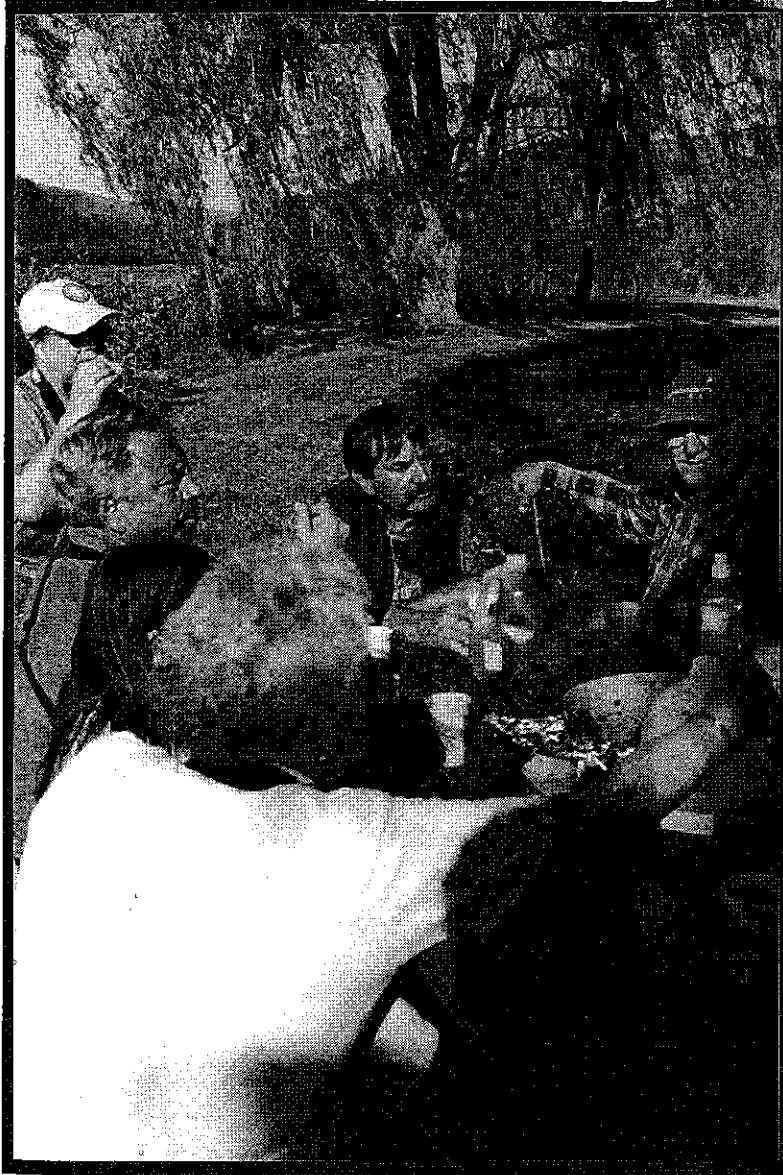
Text and photos by
Dr. Stan Kotala

Helena Kotala (*in foreground*), Luis Moore, and Cindy Moore examine lists of wetland characteristics. Canoe Creek State Park contains riverine and lacustrine wetlands of the emergent, shrub, and forested types.

Trip leader Heidi Boyle shows a wild sedum to JVAS members Darryl Goodlin, Dr. Alice Kotala, Bill Trimble, Cindy Moore, Alice Goodlin, Luis Moore, Elisabeth Kotala, and Terry Wentz.



Heidi examines a fall webworm nest as Luis Moore, Alice Goodlin, Helena Kotala, Darryl Goodlin, and Emerson Trimble look on.



After the hike — Heidi baked chocolate-chip cookies and fresh cider for all! *From left*, Cindy Moore, Luis Moore, Helena Kotala, Elisabeth Kotala, Darryl Goodlin, and Charlie Hoyer.

... 'Bat Church' [From first page]

Creek State Park, in 1993 to protect the huge population of little brown bats that had been discovered using the building. The fund also supported the construction of a nearby giant bat house — dubbed the “bat condo” — in 1995 to provide the bats with an emergency refuge if anything happened to the church.

The abandoned church, originally built in the 1800s, has been a focal point of Pennsylvania bat research because it hosts the state's largest bat maternity colony. Its population has grown from about 7,000 bats to 22,000 in the past decade.

All of those bats were thought to be little brown bats, Pennsylvania's most common species, until one day in July 1997 when PGC biologist Cal Butchkoski made a routine visit to the church attic.

“We saw these two bats and I said, ‘these almost look like they could be Indiana bats,’” Butchkoski said. “I pulled one of them down, and lo and behold, it was a lactating female Indiana bat.”

It also was the first time anyone had documented one of the rare bats using a man-made structure as a maternity roost, and the first time anyone had ever been in an Indiana bat maternity colony.

Subsequent visits have shown the discovery was no fluke. Butchkoski and colleagues have since documented more than thirty female Indiana bats using the church to rear their young. And, while bats may use different roosts from day to day, they have learned that the church appears to be the preferred roosting site for those bats.

In addition, Butchkoski this year documented that reproductively active Indiana bats were using the nearby man-made “condo,” which houses and additional 2,000 little brown bats.

Not only did the discovery upend the theory that Indiana bats didn't use man-made structures, it has given Butchkoski and colleagues a whole new window on Indiana bat behavior. In research supported by the U.S. Fish & Wildlife Service, they are attaching tiny radio transmitters to bats from the church so biologists can track them and learn what habitat they are using — something never before done in Pennsylvania.

Information gleaned from the new research should improve management activities for the bats. Previously, management efforts in Pennsylvania focused almost exclusively on winter habitat, mainly protecting caves or abandoned mines the bats used for hibernating.

“Everything we learn is new for Pennsylvania as far as tracking and summer habitat,” Hassinger, said. “It was just unknown. Now we're coming up with some really good data.”

The Canoe Creek discovery will give scientists a better opportunity to follow the bats year-round as well. The park also is home to an abandoned limestone mine that is the state's largest known winter bat hibernaculum; a survey in February 2001 counted 21,648 bats. Six species were found, including 604 Indiana bats, at least eight of which were bats that had been banded at the church.

Hassinger, though, cautioned that the discovery of the bats in the church attic will not, by itself, lead to the salvation of the rare species.

Their biggest problem in Pennsylvania, he said, is probably poor winter habitat. The state has thousands of abandoned mines that are likely to lure young bats. But many of those mines may not maintain the colder temperatures needed for hibernation throughout the winter, causing the bats to emerge too weak to survive in the spring.

“A lot of these mines and caves that we have in Pennsylvania probably are functioning as ecological traps,” Hassinger said. “Some of our young bats just get siphoned off, so to speak, into these less-than-acceptable situations where they may or may not survive over winter.”

Solving the problem will be difficult. It means trying to get into mines to determine which ones are death traps — and closing them — while keeping open the ones that provide good hibernating habitat. The problem, Hassinger said, is that many of those mines are unsafe for people to enter. “They might have all kinds of temperatures in there, but we are not going to find out what they are.”

While the discovery won't solve all of the bats' problems, it ultimately will help more bats survive.

[Cont'd on page 8]

Visitor From the Taiga

Raptors sail along Sapsucker Ridge throughout the fall. Often they fly too fast for our scope and too high for our binoculars. Occasionally an immature red-tail will hang out in our yard for a couple days, or a northern harrier will hunt low and slow over First Field. But for the most part, getting closeup looks at raptors is a matter of luck.

On the National Day of Prayer — September 14 — our luck was spectacular. Driving up our hollow in mid-afternoon, we spotted a bird sitting in the middle of the road. My husband Bruce drove to within fifteen feet of it before it flew briefly on to the muddy road bank, clawed its way up it, and then flew to a low branch overhanging the road to pick at whatever small insect it had caught and grasped with its feet.

Even without binoculars, we could tell it was a falcon that was larger than an American kestrel and smaller than a peregrine. It had a faint “moustache” mark on its face, a bluish-gray back, a squared-off, white-edged tail, and a reddish-brown speckled breast. It was the taiga form of an adult male merlin.

Bruce turned off the engine and he and I and our son Dave watched the surprisingly bold bird. At first we thought he was hurt as he fluttered down into the road ditch and walked for a short distance, hunting on foot as sharpies sometimes do. But he did seem capable of short bursts of flight. His seemingly complete disregard for us was almost spooky, although I imagine he rarely saw people on

his boreal forest breeding grounds.

It was a clear, cool, windy day and he was probably looking for food and refuge for the night in our protected hollow. Formerly known as “pigeon hawks,” merlins mostly prey on small birds, hunting them from perches, but also by flying rapidly below treetops or close to the ground as this one was doing. They also eat insects, particularly dragonflies, during migration.

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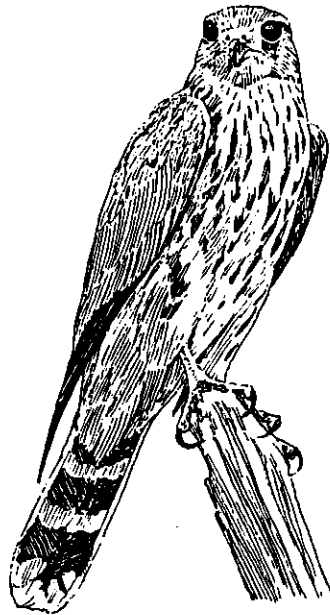
No doubt he was hoping for small birds in our hollow, but was willing to substitute insects. We continued watching him for ten minutes as he flew low back and forth across the road. Then he flew up higher into a tree branch, which convinced us that he was not injured. Slowly Bruce drove on, but the merlin persisted in flying low ahead of us and landing briefly on tree branches on either side of the car for several hundred feet. Apparently, he was hoping that we would flush prey for him since merlins are known to attack prey flushed by both living creatures, such as northern harriers, and non-living objects, particularly cars.

Finally, he flew across the stream and disappeared into the leafy forest where he may have spent the night before resuming

his migration south to coastal Florida, the Greater Antilles, or Central or South America.

On that special day of remembrance, we felt as if his presence had consecrated our green cathedral and bestowed a blessing on us that we shall cherish for many years. ❖

By Marcia Bonta



Don't forget to send your BiLo Foods and Riverside Markets cash register tapes to Anne Borland at 138A Larch St., Hollidaysburg, PA 16648. Anne redeems the tapes for \$\$\$ for the JVAS.

... **'Bat Church'** [From page 6]

For example, when barns and other buildings are demolished on state lands, officials will no longer assume they are not harboring Indiana bats. The structures may need to be more carefully inspected, or demolition delayed until the building are abandoned in the fall.

"We're not assuming — and other researchers eventually will not assume — that they do not occur in buildings," Hassinger said.

The message ringing forth from the "bat church"

also will have ramifications for other states. Tracking work in the Midwest, which holds the core of the Indiana bat population, had never found a maternity roost in a building. The discovery that they will use man-made structures may be particularly useful in that region because there are fewer trees to serve as roosts. "There is some real potential for this down the road," Butchkoski said. "We need to start working with other locations in the Indiana bat's range to see if we can get them using these structures." ❖

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