From the President’s Desk....

What to do about wind turbines?

Driving the Pennsylvania turnpike through Somerset County several years ago, I saw for the first time the presence of wind turbines in our state. The unexpected sight of turbines, standing tall and white in open pastureland, struck me immediately in a very positive way. They looked sleek and stylish, the very antithesis of a coal-burning power plant. And of course my initial simplistic assumption was that surely these structures will be a significant and welcome part of the answer to the high environmental costs of burning fossil fuels and of course their eventual depletion. Surely the use of wind power, in reality a form of solar power, should be a no-brainer, maybe even our salvation.

But unfortunately since I first saw those turbines in Somerset County, downsides of turbine power have been realized. Early on there were reports of raptors, including Golden Eagles, killed by turbine blades in California. In the East, intense debate arose within the ranks of the Appalachian Trail Conference membership when turbines were proposed on ridges in Maine within sight of the Appalachian Trail. Opponents claimed with conviction that the sight of the turbines would detract from the quality wilderness experience of the AT while supporters argued with equal logic that looking at turbines while hiking is a reasonable price to pay for clean energy. Turbines are proposed in the Atlantic off Cape Cod. Who can know what effect there will be on the marine environment? Closer to home, significant bird and bat mortality was reported this year at turbines in nearby West Virginia.

In Pennsylvania, turbines have been and will continue to be proposed on our windy ridges. But as every reader of this publication knows, the ridges are major migration routes for all sorts of birds, from eagles to hummers. We know there will be mortality – but how many dead birds will we deem acceptable in exchange for clean energy?

And what of the habitat fragmentation and destruction necessitated by the location and construction of the turbines? The number of turbines estimated to provide just a fraction of our national energy needs will be in the hundreds of thousands. Obviously, this clean “green power” will have substantial environmental costs. But just how costly? What is the cost-benefit ratio, environmentally speaking?

My naive initial enthusiasm has been diminished. Not squelched entirely, but certainly diminished. I now know that we need more information, more data, before we allow turbines to be placed wherever a corporation chooses.

Certainly more turbines will be built in Pennsylvania, and they will play some role in our energy future. But their approval should not be automatic. Organizations such as Audubon and American Bird Conservancy are developing policy positions that will be neither entirely pro nor con on wind turbines. For example, surely turbines cannot simply be placed up and down every ridge in Pennsylvania. Can we identify less environmentally sensitive sites that will still be suitable, hopefully as much as possible in already “disturbed” locations? Further, turbines do need to be lit at night for obvious safety reasons, but do so in ways shown to be less likely to attract migrants. Input on such issues is needed from scientists, energy experts, and informed citizens, people who represent neither the financial investment in turbine projects nor the most extreme of the environmentalists.

I don’t presume to tell anyone what position to take. I don’t know clearly my own feelings yet. But PSO members should not stay on the sidelines in this debate. As birders, we can play a significant role in the decisions and contribute substance to the debate that most citizens cannot.

Decisions on turbine placement cannot be made using a one-size-fits-all approach. Site by proposed site, the benefits and costs must be weighed. I hope birders, with our
understanding of potential negative aspects of this technology, will be involved.

Greg Grove, President
gwg2@psu.edu

***

The Raven Reporter

Tales of Discovery from the Special Areas Project

Seeking Assistance with Bird Checklists

The PSO Special Areas Project is working with DCNR Bureau of State Parks and Bureau of State Forests to produce high-quality checklists for various locations throughout the state. We have several “draft checklists” in MS Excel format that give “ease of finding” codes and dates for bird species found at state parks and natural areas. The project needs local people to convert these data files into checklists using a format produced by the state parks.

The Bureau of State Parks has an electronic template for a high quality bird checklist using “phenograms” that graphically show the presence of the bird species through the year. These resemble the bar graphs of the new Annotated List of the Birds of Pennsylvania, 2nd edition, by Frank and Barb Haas, but use different categories and criteria. These checklists are aimed toward a different audience than the Annotated List, the general public rather than serious birders and students (but can be used by serious birders, too). Each state park works with a local volunteer or group to fill the template with information for each bird species. The SAP “draft checklists” facilitate this process.

A few locations have been adopted by local birders for this conversion process, so we are making some progress. A few of our cooperators are involved with multiple locations so some of these lists may not be accomplished until others are completed. Here is a list of our local cooperators as of mid-October:

- Alan Seeger Natural Area – Greg Grove
- Bear Meadows Natural Area – Nick Bolgiano
- Black Moshannon State Park – Nick Bolgiano
- Cook Forest State Park – Margaret Buckwalter and friends
- Detweiler’s Run Natural Area – Greg Grove
- Greenwood Furnace State Park – Greg and Lewis Grove
- Nescopeck State Park – Alan and Monica Gregory
- Prince Gallitzen SP – Dave Gobert, John Salvetti, Georgette Syster, Gloria Lamer
- Whipple Dam State Park – Greg Grove

However, there are some locations for which we have not located a birder (or team of birders) to work with the state park converting our data into checklist form. The state park checklist uses a template that was successfully implemented by Margaret Higbee and the Todd Bird Club for a fantastic checklist of Yellow Creek State Park. We would like to repeat this success elsewhere. I have not yet contacted all of the original coordinators to see if they would like to take on this responsibility. So, you may be e-mailed or phoned soon. That being said, I would emphasize that the same people who coordinated the data collection do not necessarily need to be the ones to do the data conversion. I have learned that some bird clubs are working together in teams to accomplish this goal. After all, it took teamwork to collect all of the bird data.

Meanwhile, here is a list of parks and natural areas for which we seek some assistance with this project:

- Bruce Lake Natural Area, Pike Co.
- Codorus State Park, York Co.
- Francis Slocum State Park, Luzerne Co.
- Gifford Pinchot State Park, York Co.
- Keystone State Park, Westmoreland Co.
- Little Buffalo State Park, Perry Co.
- Marsh Creek State Park, Chester Co.
- Promised Land State Park, Pike Co.

Birders are free to amend information that was collected on SAP trips with additional observations. This is an important point, since some SAP surveys were completed a few years ago and are somewhat incomplete. Do not feel limited by the SAP data summary. It is meant as a “good start” but not a complete survey for a checklist. We always are interested in making a publication, even a site checklist, as accurate as possible. In this template, there also is adequate space for describing the bird watching opportunities at the park and giving credit to the local club and its leaders who collected the bird data and worked on the list.

Please contact Doug Gross at the address on page 4 if you are interested in helping out with any of these bird checklists. We intend to produce more “draft checklists” using SAP data in the future. This is just a good start.
Important Changes to the State Endangered/Threatened Bird List

On Monday, October 3, the Commissioners of the PA Game Commission gave final approval to changes in the PA list of Endangered and Threatened birds of the state. Please check out the News release at http://www.pgc.state.pa.us/pgc/cwp/view.asp?Q=165539&A=11 (after the CWD discussion).

These changes are:
Bald Eagle to Threatened from Endangered status.
Dickcissel to Endangered from Threatened status.
Sedge Wren to Endangered from Threatened status.
Yellow-bellied Flycatcher to Endangered from Threatened status.
The additions of Blackpoll Warbler and Black-crowned Night-Heron as Endangered (formerly not listed).

The Endangered/Threatened status in PA pertains only to the breeding populations of these species in the state. Some of these species are fairly common as passage migrants. It is particularly noteworthy that the Bald Eagle population has recovered to the level where it can be upgraded to Threatened from Endangered. The present population is much greater in size and distribution than in the early 1980s when there were only 2 or 3 nests in the extreme northwestern part of the state. This is cause for celebration. The other changes reflect an increased appreciation of how rare and vulnerable these species are in the state — including some recent downward trends, especially for the night-heron. I have searched more than 100 forested high-elevation wetlands and forests for Yellow-bellied Flycatchers and have found them in only a small handful of locations. It is truly endangered as a breeding bird because of the small population and its limited distribution. Sedge Wrens also are rarely encountered as breeding birds despite the great efforts by many birders to find them. The Pennsylvania status of Sedge Wren is part of a range-wide decrease and contraction of this miniature and mysterious wetland songbird. Terry Master and students at Eastern Stroudsburg University are studying the night-herons and egrets at the biggest colony for both species. We need to learn more about the basic natural history, behavior, and habitat use of our most vulnerable species if we hope to save them in the state.

The Ornithological Technical Committee (OTC) of the PA Biological Survey recommended these changes to the PGC. The OTC acts as an advisory group to the PGC on such matters. As part of the recommendation process, the OTC went through a rigorous procedure of nominating the species for status change and documenting the reasons for these changes in status. This was a significant effort on the part of several committee members. Dan Brauning successfully shepherded the status change process through the Commission. The smooth acceptance by the Commission of the OTC recommendations is a testament to the fine work accomplished by the committee.

I served as chair of the OTC for 12 years prior to accepting a position with the PGC in 2004. (Bob Ross now ably serves as OTC Chair). I would like to take the occasion of these status changes to publicly thank the OTC members for making this significant contribution to our knowledge of Pennsylvania birds and to the protection of those species that are most vulnerable. They quietly have done great work. Each and every member has made a significant contribution, usually well behind the scenes.

I also would encourage all PA birders to participate in the ongoing 2nd PA Breeding Bird Atlas. This Atlas will provide the core set of data upon which any future changes will occur to the PA Endangered/Threatened species list. Several species might be listed if we only had a more thorough survey of where they are and where we are fairly certain that are not - because we looked for them there. For example, the Long-eared Owl currently listed as “Candidate - Undetermined” may be Threatened or Endangered, but we lack certainty about the thoroughness of our surveys for this elusive species.

Bald Eagle Nests in 2005: Big Leap Forward in Successful Recovery

Our National Symbol is really taking off in Pennsylvania. The Bald Eagle nesting population took another great leap forward in 2005. It was the biggest year for new nesting pairs. All of the results are not in, but we have a very good idea of the picture of Bald Eagle success in 2005. So, here is an “unofficial” summary of the 2005 season.

There were 97 “active pairs” of Bald Eagles in Pennsylvania in the 2005 breeding season. This includes those pairs that we have evidence of a nest or nesting attempt. Of those nests, we believe that 69 successfully fledged eaglets. This is approximately a 67% success rate. This was substantially lower than the 2004 season when Bald Eagles enjoyed an 81% nest success rate and a record number of 114 eaglets produced. The 2005 total production is the second best year ever in Pennsylvania. The 2005 success rate calculates as 1.1 eaglet per nest and 1.5 eaglets per successful nest.

The number of active nests grew to 97 in 2005 from 78 in 2004, an increase of 19 pairs, the greatest numerical increase in our history. The 2005 total active pairs included 20 active pairs newly discovered. We lost one nest location on last year’s list from the flooding of an island in the Susquehanna River where the nest was located. At least two of the new nests were discovered by Atlas volunteers. It also is noteworthy that at least two “new nests” were almost certainly active in past years, but were undetected — one of these near a very popular birding location. Some eagle nests are very well-hidden!
As in recent years, these new nest sites were widely scattered and in a variety of locations. New nests were found in 12 different counties including Wyoming, a new county for our eagle nest list. Amazingly, three of the new nests were found in Chester County. Two of these could be called “Philly suburb” nests, not too far from the Main Line. Our National Symbol is invading the ‘burbs!

If we include pairs that seem bonded but without nests located, there were at least 104 territorial pairs in the state. There were territorial pairs for which we do not have nests located in the following counties: Beaver, Bedford, Carbon, Columbia, Luzerne, and Sullivan. Summering eagles also were reported in other counties (Clarion, Susquehanna), but the movement of the Florida eagle population into the Northeast during the summer can be a confusing factor in counting active eagle pairs. We are uncertain about the status of many single eagles reported during the breeding season although we feel certain that their pairs are being unreported due to the remoteness of their nesting locations. We hope that nests for these pairs can be found this winter or early in the spring. Birders are urged to keep an eye on the activities of pairs so nests can be located early in the season when they are easier to find.

Bald Eagle nests are widely distributed in the state. Nests have been found in at least 28 counties. Nests are somewhat clustered in the northwestern wetlands, the lower Susquehanna, and the Pocono Mountains/upper Delaware. Eagles are spreading into gaps where there is good habitat but no eagle nests. This includes quiet areas around reservoirs and wooded streams in our busy suburbs as well as points between established nesting pairs. Some pairs also move short distances to more attractive sites as they gain nesting experience.

The nest success rate was somewhat lower than in recent past years. Despite many dedicated observers, we cannot have “24/7” coverage for each nest. So, we truly do not know the reason for some nest failures or abandonments. However, Brenda Peabees and I feel that some nest failures were caused directly or indirectly by late winter/early spring storms and consequentially high waters. The storms either weigh down the nest with wet snow, weakening the structure, or interrupt the nesting cycle. Rain, too, can cause some of the same problems with nests as snow and can also cause difficult foraging situations with high, muddy water. In some cases, the nest damage does not become apparent until the rambunctious nestlings start exercising around the nest, flapping their big wings and jostling with each other. With two-thirds nest success, the Bald Eagle population still is burgeoning with young eaglets soon seeking new places to forage and eventually nest.

It has been very gratifying to witness a great deal of cooperation and sacrifice made by many professionals and volunteers who check our eagle nests. State and federal agencies freely cooperate in this project. As the nest list grows, it will become more necessary to depend on volunteer nest watchers to keep an eye on our burgeoning eagle population. Sometimes the best defense for an eagle nest is a pair of caring eyes.

Our goal is to break the 100-nest barrier in 2006. It will be a special cause for celebration. I ask all of you for your cooperation to make the 2006 season particularly memorable. Please let me know if you are interested in keeping track of an eagle nest. We need eagle nest watchers even in regions where there are a lot of active birders.

Nightbirds: Breeding Season Is Rapidly Approaching

Great Horned Owls already are hooting behind our house in the moonlight. High pitched hoots are answered by lower pitched hoots. Courtship begins slowly and gently with these nocturnal predators. I find it charming that such notorious “tigers of the night” spend weeks in courtship.

It is not too early to think about nightbird surveys for the Breeding Bird Atlas. Of course, many nightbirds do not return to their breeding grounds until April or May, so you will only get a few. However, it is much easier to locate Great Horned Owls and Barred Owls in winter and very early spring than later in the season. Return visits later in the season can help better the Atlas code for each species and add more data. In one evening, a well-organized birder can visit several blocks to check for owls, especially in the early season.

For those who are interested in doing Atlas nightbird routes but do not have a CD player, please let me know if you would like a tape of the Atlas nightbird protocol – basically a slightly revised Toot Route protocol. I will make tapes for those who are interested and mail them to you. Please check the Atlas website for more information about this survey which will give us not only better distribution information about our nightbirds but also some population indices.

For more information about the Special Areas Project, Bald Eagle and other Species of Special Concern, and nocturnal bird surveys, contact:

Douglas A. Gross
Wildlife Biologist, Endangered Bird Specialist
Pennsylvania Game Commission
Coordinator of the PSO Special Areas Project
144 Winters Road, Orangeville, PA 17859
Phone: 570-458-4109 (or 458-4564)
E-mail: dogross@state.pa.us or dougross@sunlink.net
PSO Bird Quiz

How well do you know your Pennsylvania birds?

Because October is a prime month for seeing fall-migrant sparrows, all birds in this quiz are members of the Emberizidae, the “New World Sparrow” family.

1. Which sparrow, now severely declining in our state, did Audubon call the Bay-winged Bunting?

2. Which two sparrows, formerly regular breeders in limited areas of Pennsylvania, were last confirmed nesting here in the 1930s?

3. Just the opposite, which sparrow is our most recently confirmed breeder?

4. We see the beautiful “Red” subspecies in Pennsylvania. Three other subspecies groups, all in the far west, are “Sooty,” “Slate-colored,” and “Thick-billed.” What is the species?

5. In October 2001, an Emberizid with a remarkable abnormality was captured at Powdennill Avian Research Center in Westmoreland County. It was a bilateral gynandromorph. What was the species, and for a bonus, what is this rare aberration?

(Answers on page 8)

PSO Meeting 2006

The 2006 annual PSO meeting will be held in Westmoreland County May 19-21. The meeting will celebrate the 50th anniversary of the establishment of the Powdermill Nature Preserve where some of the weekend’s events will be held.

The weekend will start with one or more field trips on Friday. On Friday evening, registration, a social time, and a business meeting will be at Powdermill. Saturday will begin as always with field trips in the morning. Saturday afternoon talks will again take place at Powdermill. The Saturday evening banquet will be held in nearby Ligonier at the Ramada Inn Historic Ligonier. The weekend will then conclude with more field trips on Sunday morning. A block of rooms has been reserved at the Ramada Inn Historic Ligonier for those who wish to stay there. The line-up of speakers and field trips is not yet complete although I can say that Powdermill, naturally, will be featured. Look for details in a future edition of The PSO Pileated.

2006 Winter Raptor Survey

The 2006 Pennsylvania Winter Raptor Survey (WRS) will be conducted from January 21 through February 12. This will be the 6th year for this survey. Last winter, volunteers surveyed routes in 63 counties covering nearly 8000 miles and accumulating close to 500 hours of observer effort. Nearly 3500 raptors were tallied along with 1200 vultures.

Interested birders are invited to participate in the 2006 survey. In December I will contact past participants by e-mail. If you have a new e-mail address since last winter, please contact me. If you wish to participate for the first time or at least get more information, contact me via e-mail (gwg2@psu.edu).

Potential new participants should read carefully to get an idea of what the survey entails. The surveys are done from a vehicle along a route designed by the participants. In counties with previously established routes, I ask that new participants either join an established route or coordinate to ensure that new routes do not overlap established routes. I encourage development of new but non-overlapping routes. For new folks I will provide e-mail addresses of previous participants in your county so that all parties can coordinate.

Routes should be in open country as much as possible (not easy in north-central Pennsylvania!) and should be designed with safety as the top priority. In other words, routes should not be on busy roads, or minimally so. Detailed (but rather simple) guidelines for the WRS will be provided well before January 21. Briefly, we are particularly interested in the four "open-country" raptors (Northern Harrier, Red-tailed Hawk, Rough-legged Hawk, and American Kestrel) as well as the two vulture species. Other raptors, owls, and shrikes are the only other birds to be recorded so that attention can be focused on spotting raptors. Beyond counting raptors, participants are asked also to record whenever possible age/sex/color-morph data as appropriate for harriers, red-tails, rough-legs, and kestrels (see forthcoming guidelines for details).

The 2005 WRS results were published in Pennsylvania Birds (Volume 19, No.1). A record high was set for Red-tailed Hawks while rough-legs were found in good numbers in central and south-central Pennsylvania. Kestrels recovered somewhat after a record low in 2004. There is still concern about the health of the kestrel population in the northeastern states. What will this winter bring?

I close by expressing my appreciation to past participants and hope that you can all get out there again this winter – and that gas will stay below $3 a gallon!

– Greg Grove
The authors examined 255 specimens of 22 species collected at the base of cooling towers at a nuclear power plant in Limerick, Montgomery County, and 247 window-killed birds of 58 species collected from commercial and residential buildings in Allentown and in Illinois. Classifying injuries to the head and neck as superficial, subdermal, and skeletal, Veltri and Klem found significant differences between tower-kill and window-kill injuries.

Superficial injuries were represented by the amount of blood and fluid in the mouth. Blood was present in only 29 percent of the tower-kills but in 56 percent of the window-kills. The authors suggested that this difference was most likely an artifact of the way specimens were discovered, collected, and recorded. Most tower kills were not examined until days after death, when the dried blood and fluid would have been more difficult to measure. Window-killed birds, on the other hand, were discovered within a few hours, and the presence or absence of fluids was recorded immediately.

Findings about skeletal injuries were surprising: 82 percent of tower-killed birds and 91 percent of window-killed birds had no fractured bones, and all of the small number of fractures that did occur were at the junction where the bill met the skull. Veltri and Klem noted that the complete absence of cervical fractures was a result “further confirming that the often cited cause of death of collision victims from a ‘broken neck’ is clearly in error.” (The authors did note a broken-neck record from a stooping Peregrine Falcon that hit a glass pane in Boston, Massachusetts, and surely died from this and multiple other internal injuries.)

Subdermal injuries were measured by the amount of blood pooling within the skull. Tower-killed birds had proportionally more pooled blood than window-killed birds, a difference possibly resulting from the collision force. Migrants flying higher and faster might strike towers with greater momentum than birds flying from nearby vegetation or feeders into windows. All but three of the 247 tower-killed birds and all but five of the 255 window-killed birds showed intracranial blood. Patterns of brain damage shown by histological examination of two window-killed specimens indicated that internal brain injuries best explain the cause of death in both tower and window collisions.

In the *Wilson Bulletin* paper, Klem and his coauthors pointed to previous experiments showing that netting placed in front of windows greatly reduces strikes. They noted that such screens are commercially available, but they promoted no particular sources. PSO’s Treasurer Frank Haas offers one such product, called “The Bird Screen,” which he has displayed at our annual meetings. Haas says the screen eliminates collisions almost completely and, because it is not so taut as a regular window screen, cushions the impact for birds that still hit it, causing little or no injury. See his web site at www.birdscreen.com for information. You can also read some of Klem’s studies on the site at www.birdscreen.com/articles.htm.

- Paul Hess
Conservation Corner

At the end of September, the U.S. House of Representatives passed a bill best called an “Extinction Bill” (HR 3824). It undermines the protection of habitat critical to endangered/threatened species while providing a windfall of benefits to developers – all at taxpayer expense.

The bill, introduced by a long time anti-environment congressman, Richard Pombo, will do much to undo what the 1973 Endangered Species Act has accomplished. Specifically, habitat critical for the recovery and survival of endangered species will no longer be protected, ignoring an essential element for the recovery of endangered species. The bill would exempt all pesticide decisions from compliance with the current ESA for at least five years ignoring the fact that some pesticides have significantly contributed to the decline of certain endangered species.

To make matters worse, the bill authorizes payments to developers/landowners if there is any interference with development — money that could be better spent on restoring critical habitat and conducting population studies. And the last item that I’ll mention is that the bill prohibits the Fish and Wildlife Service from using any scientific information about an endangered species that is learned after a conservation plan is completed. Once again, the current bunch of politicians in Washington chooses to ignore good science when it doesn’t suit them.

John Flicker, President of the National Audubon Society, stated “When government fails to honor its responsibility to protect the weak and the vulnerable, in favor of the rich and powerful, the weak and the vulnerable eventually die.”

So, what can PSO members do – contact Senator Specter and Senator Santorum and tell them that HR 3824 is a bad bill and urge them not to support this bill in the U.S. Senate. Senator Specter’s address is 711 Hart Senate Office Building Washington DC 20510 and Senator Santorum’s address is 120 Russell Senate Office Building Washington DC 20510. Or you can contact them through their respective websites – specter.senate.gov and Santorum.senate.gov.

In other news of interest, the Pubic Service Commission of Wisconsin has approved a large wind-farm just east of Horicon National Wildlife Refuge and recently denied a petition for a rehearing. Wind energy is certainly an alternative form of energy to fossil fuels and one that we must consider. However, it doesn’t come without drawbacks. Greg Grove’s message in this newsletter provides an excellent review of this issue, and it is one that we must continue to monitor so that wind farms are properly located away from major migration routes.

— Mark Henry

The PGC’s Private Landowner Assistance Program

by Dan Mummert

In May 2004, the Pennsylvania Game Commission created the Private Landowner Assistance Program (PLAP). This program is designed to provide a technical resource for private landowners wishing to manage their properties for the approximately 125 bird and mammal species of concern found throughout the state. Examples of many species of concern include Great Egret, Louisiana Waterthrush, Scarlet Tanager, Eastern Meadowlark, Indiana Bat, Allegheny Woodrat, and River Otter. Because more than 85% of Pennsylvania is privately owned, this program has the potential to be incredibly beneficial to many wildlife species, especially those in need of specialized management assistance.

To implement this program, a Regional Wildlife Diversity Biologist (RWDB) has been established for each of the PGC’s six regions (except for the northcentral region which is vacant). These biologists provide technical assistance and help develop habitat management plans related to landowner objectives and species of concern. Landowners interested in managing their property for species of concern and overall wildlife diversity are encouraged to contact their region’s RWDB. After a short interview, the biologist will send the interested property owner a landowner objective survey, which identifies the property by habitat features and types, ranks the landowner’s management goals and species preferences, and lists property uses and activities. After reviewing the survey, the biologist will visit the property and walk it with the landowner. A detailed plan will be developed based on potential species of concern and the landowner’s management goals. PLAP is a free service provided by the Game Commission through grants administered by the U.S. Fish and Wildlife Service.

The RWDBs are enthusiastic biologists dedicated to conserving our state’s wildlife diversity. Since the program’s creation, the RWDBs have consulted over 225 private landowners totaling more than 33,000 acres. One hundred forty-three management plans have been written for over 24,000 acres. The RWDBs have also conducted more than 40 presentations related to species of concern management, conducted 5 workshops, created a Barn Owl Conservation Initiative, and have participated in research activities related to Osprey, Northern Flying Squirrels, bats, and woodrats. The RWDBs can be used on many diverse projects so long as the project potentially involves species of concern in Pennsylvania.

Please use the following listing if you are interested in contacting your region’s wildlife diversity biologist.

Northwest: Tim Hoppe at 814-860-8123.
PSO Newsletter

This newsletter is published four times a year by the Pennsylvania Society for Ornithology. To renew your membership, send your check made payable to "PSO" to:

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The Annotated List of the Birds of Pennsylvania Now Available

Under the auspices of the Ornithological Technical Committee of the Pennsylvania Biological Survey, Barb and Frank Haas have revised and updated the Annotated List of the Birds of Pennsylvania, Second Edition, the first edition of which was issued in 1992. This new list is available from PSO. Cost is $7 including tax and postage. Check our website to see a sample (www.pabirds.org).

Send your order with a check made out to the “Pennsylvania Society for Ornithology” to PSO, 2469 Hammertown Road, Narvon, PA 17555-9730.

Answers to PSO Bird Quiz on page 5

1. Vesper Sparrow.
2. Lark Sparrow (last in Huntingdon County, 1931) and Bachman’s Sparrow (last in Washington County, 1937).
4. Fox Sparrow.
5. Eastern Towhee. A bilateral gynandromorph has male characters on one side of its body and female characters on the other.