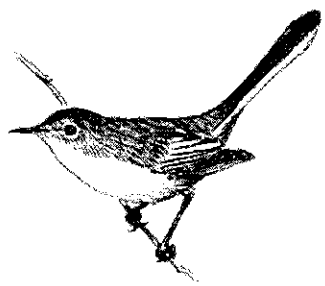
THE GNATCATCHER

Newsletter of Juniata Valley Audubon

Vol. 38 No. 1 — Jan/Feb 2006 **www.juniatavalleyaudubon.org**



Area Ridges threatened by inappropriate Windplant Siting

Juniata Valley Audubon has learned of several attempts to secure properties for the creation of industrial windplants, also known as "windfarms," on the major mountain ridges of Blair County. Although Juniata Valley Audubon is in favor of renewable energy, the siting of wind farms along central Pennsylvania's ridges would have a severe negative impact on resident and migratory wildlife, and preclude recreation, such as hunting and hiking, within several hundred yards of the wind towers.

The wind turbines themselves have been shown to kill many birds and bats. Ridges such as Brush Mountain and Tussey Mountain are major migratory routes for golden eagles and bald eagles, as well as smaller raptors such as broad-winged hawks, peregrine falcons, and sharp-shinned hawks, and other migratory birds, such as waterfowl and songbirds . Our ridges, because they provide continuous forest cover in a north-south orientation, also serve as travel corridors for migratory bats, such as the silver-haired bat and red bat. Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain surround the greatest concentration of bats in the Commonwealth, including the state's largest colony of the Endangered Indiana bat in Canoe Creek State Park. The threatened small-footed bat also has been found in several caves in this area. The windplant closest to us, in Meyersdale, is notorious for killing thousands of bats each year. Wind projects integrated into the highest forested ridgelines in the region, unlike wind projects in the Midwest and West, devastate bat populations.

Because these turbines will require maintenance, roads will need to be constructed to the ridgetops of mountains that now are largely roadless, resulting in fragmentation of their forests, which provides a pathway to exotic invasive species, such as Ailanthus. In addition to the fragmentation caused by the construction of new, permanent roads, the three- to five-acre pads around each tower quickly add up. **Juniata Valley Audubon views this loss of intact ridgetop forest as the most devastating effect of locating windfarms on our mountains.** One of our members recently visited a major ridgetop wind installation in West Virginia and was shocked to discover that the entire ridgetop had been cleared of vegetation for several miles - the length of the installation. Thus, even if the problems with bird and bat deaths by direct collision can be solved, we would see a permanent loss of forest cover in the very places where wildlife most needs it. In addition, in the central and southwestern portions of Pennsylvania, ridge systems serve as habitat islands for forest-dependent species, such as the scarlet tanager, the wood thrush, the cerulean warbler, the bobcat, and the fisher.

The Blair County Natural Heritage Inventory conducted under the direction of the Blair County Planning Commission designated Brush Mountain, Canoe Mountain, Lock Mountain, Loop Mountain and Tussey Mountain as **Landscape Conservation Areas** because of the value of their unfragmented forests for wildlife. In addition, the Blair County Planning Commission's Greenways Plan demarcates these same mountains as **Greenways**, or areas where conservation of the natural landscape should be the primary objective. The siting of wind turbines in areas designated as both Landscape Conservation Areas and Greenways by the Blair County Planning Commission would violate the intent of these designations.

Because of the danger posed by ice and broken parts being thrown from the 200 foot long rotors, people will not be able to

venture safely within several hundred yards of the towers. Ice from the rotating blades has been thrown more than 500 yards, putting people and property at risk. In addition, the noise from each 300-400 foot tall tower is the equivalent of a gas-powered generator (100 decibels) and can be heard up to 1500 feet away. This will preclude recreation, such as hiking and hunting, on ridges where the wind farms are located.

The **US Department of the Interior guidance document** regarding wind farm location states (on p 3 and 4):

1. **Avoid placing turbines in areas where there are endangered species.** (The area surrounded by Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain, which are all LCAs, is home to the largest Indiana bat colony in PA. The Indiana bat is a federally endangered species.)

2. **Avoid placing turbines in bird migration pathways.** (Brush Mountain and Tussey Mountain, both LCAs, are major migratory routes for raptors, especially golden eagles and bald eagles.)

3. **Avoid placing turbines near known bat hibernation, breeding, and maternity colonies**. (The area surrounded by Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain, all LCAs, is home to the largest maternity colony of little brown bats in PA (20,000+) and is the hibernation site for 25,000 bats of 6 species, including the Federally Endangered Indiana bat and the Threatened small-footed bat.)

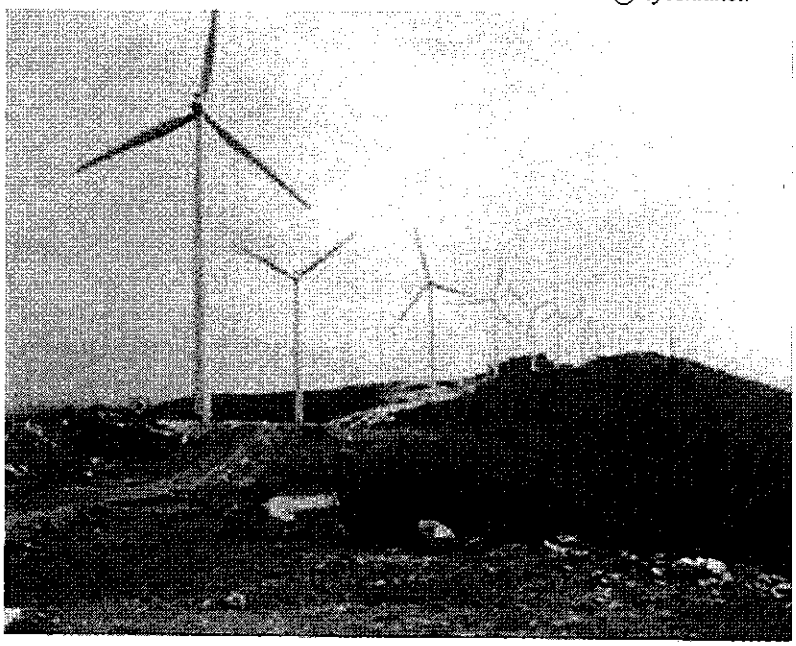
4. **Avoid fragmenting large, contiguous tracts of wildlife habitat**. (Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain, as well as Tussey Mountain and portions of the Allegheny Front were designated as LCAs in the Blair County Natural Heritage Inventory done under the direction of the Blair County Planning Commission because they represent large contiguous tracts of forested wildlife habitat.)

As you can see, locating wind farms on Blair County's LCAs does not meet the criteria for acceptable wind farm locations according to the US Department of the Interior.

For the above-mentioned reasons Juniata Valley Audubon recommends that local governments prohibit the construction of wind turbines in areas designated as both Landscape Conservation Areas and Greenways by the Blair County Planning Commission and also reject any proposal to provide right-of-way across these areas to access wind turbines. **On the forested ridges designated as both Landscape Conservation Areas and Greenways, the devastating effects of industrial windplants on wildlife conservation and outdoor recreation outweigh any environmental benefit of wind power.**

Juniata Valley Audubon seeks a **balanced** approach to energy production. It is not unreasonable to recommend that lands designated to have exceptional conservation value be off limits to windfarm development.

For additional information, contact Dr. Stan Kotala, Juniata Valley Audubon President and Conservation Chair at 946-8840 or ccwiba@keyconn.net.



Wind turbines on top of our ridges will require massive clearing of the forest. Each turbine requires the clearing of 5 acres of trees surrounding it.

For every eight turbines on our mountains, at least one mile of new road must be built along the ridgetop.

HOW FRAGMENTATION THREATENS PENNSYLVANIA'S FORESTS

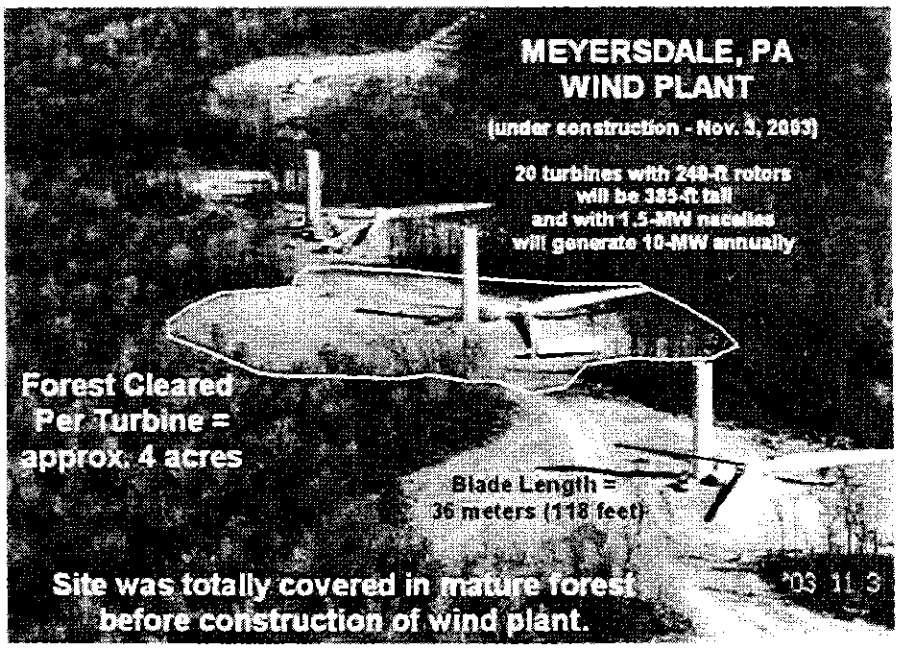
by Charles Bier
Senior Conservation Scientist, Western Pennsylvania Conservancy

Fragmentation is simply the division of habitat areas into smaller and smaller units. This is an important concept in conservation theory because as habitats are reduced in size, and especially when they become bounded by uninhabitable zones, ecological viability and suitability for living species declines. For example, 10 one-hundred acre patches of forest, each bounded by four-lane highways, do not provide the same ecological function, habitat or conservation value as a single one-thousand acre patch of continuous forest. So patch size and the condition of adjacent areas are of concern in maintaining biodiversity and ecological integrity.

Remember, forests are not simply groups of trees, but exist as ecosystems with thousands of species of plants, animals, fungi and more, all with their own life-ways and requirements for survival. A pair of wood thrush might only require a dozen acres of forest for nesting, while the northern goshawks require more than one thousand acres. So forest patch size matters and the examples given are only for a single pair of each of those species. Conserving enough forest to provide habitat for viable wildlife populations is ultimately the real conservation goal. For example, forest interior birds require thousands of acres of good habitat to address threat factors. One study shows that smaller forest patches allow some nest predators, which mostly travel into forests to the depth of only one to two football fields, to have significant impact on nesting success. Other conservation problems, such as high white-tailed deer density and invasive exotic species, increase with small patch size and forest fragmentation.

The type of fragmentation is another aspect of this concept. The condition, width and longevity of fragmenting features are important. A forest clearcut or a tornado blowdown are drastic albeit temporary, while a multi-lane concrete super-highway with speeding traffic presents more drastic threats. While some wildlife and the seeds of certain forest plants might fly across a highway to another forest patch, it has been shown that there are ground dwelling forest species that will not cross such a barrier. One study shows that this affects the genetic flow between adjacent colonies of forest ground beetles and, therefore, is a conservation concern.

Conservationists are turning to landscape level planning and protection. Large landscapes and watersheds linked through a network of effective corridors are key to successful biodiversity stewardship.



Partners for Fish and Wildlife Act Passes Senate

The Partners for Fish and Wildlife Act (S.260) moved one step closer to becoming law in June, when it passed the Senate with unanimous approval. The bill seeks to formalize an existing program that provides financial assistance to private landowners interested in restoring and managing wildlife habitat on their property.

The Partners for Fish and Wildlife Program is a voluntary project that was originally established in 1987. Funds for the existing program would be doubled under the new law, making $75 million per year available to landowners for the next five years. Typically, supported improvement projects include restoring or enhancing wetland habitats, replanting areas with native plants, or fencing riparian areas to include livestock. The interested landowner must first contact FWS, and then work with he agency to develop a project design before funds are made available for project implementation.

Projects that contribute to the survival of endangered, threatened, or candidate species, or migratory birds of management concern are favored, as are projects that contribute to achieving goals of the North American Waterfowl Management Plan.

Since its inception, the Partners for Fish and Wildlife Program has helped restore 722,500 acres of wetlands, 1,573,700 acres of prairie and native grasslands, and nearly 5,900 miles of riparian and stream habitat. Bird species of conservation concern, including Lesser Prairie Chicken, Gunnison Sage Grouse, and Mountain Plover, could make significant strides towards recovery if interested landowners act to take advantage of these funds. For more information visit: www.fws.gov/partners.

Crapo introduces Endangered Species Act bill in Senate

Senator Mike Crapo (R-ID) has introduced an Endangered Species Act bill in the Senate. Although the bill purports to provide greater incentives for private landowner conservation, the legislative language does not carry out the bill's stated goals. Instead, the bill would seriously weaken the Endangered Species Act's safety net provisions protecting endangered species and habitats.

Senator Crapo's "Collaboration for Recovery of Endangered Species Act" (**S. 2110**) would:

- Waive fundamental habitat protections
- indefinitely delay designation of critical habitat
- indefinitely delay listing and protection of endangered species
- gives industry and other special interest control over the recovery planning process
- undermine Endangered Species Act enforcement
- force taxpayers to pay developers and other landowners to comply with the law
- divert scare dollars from private landowner conservation
- codify the "No Surprises" policy, which gives assurances to landowners, but no assurances to endangered species protection and recovery.

Senator Crapo's legislation continues the push begun in the House, led by Congressman Richard Pombo, to make far-reaching changes to the Endangered Species Act. Pombo's Extinction bill is an attack on the Endangered Species Act and a tremendous give-away to greedy developers and other special interests.

Please urge Senators Santorum and Specter to oppose Senator Crapo's Endangered Species Act bill (S. 2110).

The Endangered Species Act: guarding America's natural heritage for more than 30 years

by John Fitzpatrick, director, Cornell Laboratory of Ornithology

Imagine the government weakening, then eliminating, highway laws that set speed limits on motor vehicles. "After all", supporters would argue, "these laws aren't working. Thousands of people are still dying on our highways because of speeding." Imagine doctors withholding medicine from all but the gravely ill patients, explaining, "We shouldn't treat patients until they actually begin to die." Imagine police departments compensating criminals for every thwarted crime, on grounds that the perpetrators were being robbed of potential income. Arguments akin to these are among those offered in support of a bill recently passed by the U.S. House of Representatives (HR 3824, passed by a vote of 229 to 193). If enacted into law, this bill would starve--and ultimately destroy--the single most important act of environmental legislation in history.

The Endangered Species Act (ESA), signed by Richard Nixon in 1973, declared that the government and citizens of the United States shall do what is reasonably within our power to keep any native species from going extinct in our country. Over the ensuing 30 years more that 1,300 species were officially listed as Endangered or Threatened, and populations of more than half of these have either remained stable or begun to increase since listing. Even more important, and contrary to statements often made by opponents of the ESA, the process works extremely well. More than two thirds of the species that have been on the Endangered Species list for 12 years or more are showing signs of recovery. Only 44 listed species (3 percent) are now classified as extinct.

The American public overwhelmingly supports retention of the ESA (more than 80 percent according to some polls). Nevertheless, HR3824 contains a sunset clause that would end the law in 10 years. It also removes restrictions on pesticide use that threatens rare species, erects copious bureaucratic hurdles to the listing and recovery process, deletes designation of "critical habitat," limits the amount of time provided for review of land use proposals, and gives political appointees authority to declare how species are (or are not) protected. The new rules would remove most of the current protection afforded species designated as Threatened--thereby allowing them to decline further until they get reclassified as Endangered (i.e., the gravely ill patient). Indeed, the proposed law would remove "recovery" from the stated goals of them ESA altogether, making mere "survival" the standard for success. Finally, the bill requires financial compensation to anyone claiming to suffer an economic impact as a result of obeying the law.

Study after study confirms the correctness of the ESA's fundamental assumptions. As clearly stated in its original language (Section 2b), the act's purpose is *to protect the ecosystems* upon which endangered and threatened species depend. Endangered species do not represent mere curiosities to be preserved by convenience, like so many museum specimens. Besides being our most effective indicators of broad-scale environmental damage and degradation, they also demonstrate our capacity as managers of the earth to live side by side with natural systems. The latter simply requires that we make the effort. The ESA can be improved, most notably by adding incentive provisions, but its principle features deserve canonization, not damnation.

JVAS THANKS ITS CORPORATE SPONSORS

From Eggs to Owlets

By Heidi Boyle

The trees were stained dark with rain on an early February morning. The raucous shrieks of crows pierced the cold fog, and echoed eerily through the ravine. I stumbled quickly up a slope, slipping over slushy snow and slimy logs, trying to find the noisome birds. As I came around the hillside under the hemlocks, I saw a great horned owl take off, being mobbed by a determined confrontation of crows.

The beautifully patterned owl was probably the mate of an owl sitting on a nest around the other side of the hill. I had watched the nest and seen the female sitting low among the sticks, glaring at me with her startling yellow eyes. Great horned owls do not build their own nests; this pair had claimed an old red tailed hawk nest in a huge white pine.

Great Horned Owl by Helena Kotala

At this time of year, the big female was probably sitting on a clutch of 2 – 4 eggs. It would seem a cruel time of year to lay eggs, with temperatures at times dipping below zero and a constant wind ready to freeze eggs exposed even for a short time. The great horned owls have the advantage of nest selection by laying eggs earlier than other owls or even hawks, but the price is constant vigilance against cold and predators.

As the calls of the crows faded away, I turned carefully on the icy slope and trekked downhill and along the ravine to seek out the nest. After twenty minutes of uncomfortable hiking, I found the bulky nest, somewhat sheltered in the crotch of two large branches. The top of the female's head was just visible through the shifting fog, and I could see the branches receiving a wet, icy coating.

Even with her down coat the female great horned owl didn't weigh more than four pounds, but her eggs were well designed to withstand her weight by sporting a curved shell. Studies have shown it takes 26 pounds of pressure to break a swan's egg, yet the same curved shell allows for easy breakage from the inside while a chick is hatching.

I stood up just up the slope, holding my collar closed against the wet weather. I could just make out the wet owl as she hunkered down over her eggs to keep them warm and dry. Females have a sparsely feathered brood patch on the belly that has a higher percentage of blood vessels than other parts of the skin. Blood flow through these vessels creates a good source of heat for the eggs. The female great horned owl sticks close to home during the incubation phase, rarely leaving the nest during the day, only being relieved by the male at night. The owl I had seen fleeing from the crows would most likely return after a while to take up his watch post near the nest.

I returned twice more in the next month to check on the owls. Sitting in her nest among the branches high in the swaying tree, the female would incubate her eggs just over four weeks. The rasping and muttering of a porcupine, the scream of a bobcat and the various creaks snaps and groans of trees would accompany her through the long nights as the collection of chemicals within the eggs rearranged and coalesced into living pulsating chicks.

Nearing the end of the four-week period, the embryo hidden warmly in its shell would go through amazing changes. Muscles in the embryo's neck would suddenly develop quickly, then contract so the egg tooth (a bony nub on the beak) would pierce the air cell and the chick would take its first breath. As the internal air supply dwindled, increased carbon dioxide in the blood would set off another reaction which would prompt the chick to then use its egg tooth to begin breaking through the shell.

(A scientist at the University of Colorado has discovered that upon positioning the head of an adult bird in a specific way under its wing, the bird would promptly begin hatching movements. This discovery debunked the old theory that hatching behavior was only temporary and probably chemically controlled. Scientists found that the contraction of the muscles sends a signal to the brain, prompting hatching movements.)

Deep in the woods in her nest, the female great horned owl would monitor the hatching process closely, but as her eggs were laid one to two days apart, so would the eggs hatch over several days. Throughout the hatching process, the mother owl would carefully keep the hatching eggs covered.

One crucial part of hatching would occur as the chick rested from its initial breakthrough. As fresh air entered the shell, the internal membranes would dry, forcing the blood into the chick. If the shell were torn away too soon, the chick could literally bleed to death.

As the end of winter loses its grasp, the mother great horned owl is still tied to her nest and her newly hatched young. Owl young are altricial, meaning that when the chicks hatch, their eyes are closed, they cannot hold up their head, have only a sparse coating of down and are totally dependent upon their parents for a long time. Chicks leave the nest around 6 - 8 weeks, and even then do not fly well until 9 – 10 weeks.

It wasn't until the end of March that I returned one late afternoon to catch a glimpse of the pair of young owlets in their mottled gray feathers. The nest looked very different, splashed with white wash and feathers. I could hear the owlets screeching for food – a scary sound in the gray-purple of twilight. The chicks were probably 4 - 5 weeks old, and the mother would now be able to leave the nest regularly for food. The owlets were a noisy pair, actively moving around and screeching. In another few weeks when they would leave the nest and finish fledging in lower branches or on the ground, they would not be so vocal.

I stood quietly, using my binoculars to watch. The owlets were fat, puffy and huge. Because parents must feed nestlings as soon as they hatch, chicks are often different sizes. These chicks were active and were rapidly growing on a diet of rodents and rabbit parts.

I didn't want to stay long and disturb the family since the parents would surely be nearby and returning soon with food, so I slipped away. I only saw the young owlets once more after that, astounded that they grew to look like their parents in no time. By autumn, the young would disperse, and the cycle of breeding would begin anew. I looked forward to the first calls of the great horned owls, as they would once again claim their territory and nest in the old pine.

BIRDING IN BIG (KISHACOQUILLAS) VALLEY, MIFFLIN COUNTY

by JVAS member Greg Grove

On a relief map of central Pennsylvania one can easily discern a long, wide valley in southwestern Mifflin County. Flanked on the southeast by Jack's Mt. and by Stone Mt. to the northwest, this is the Kishacoquillas Valley. Much of the valley is drained by Kishacoquillas Creek, which empties into the Juniata River at Lewistown. To the locals, this region is simply "Big Valley".

To the imaginative birder, the wide-open spaces of Big Valley are prairie-like. In summer, gentle breezes flow across sun-baked fields and pastures. There are grassland birds, especially Savannah and Vesper Sparrows, Horned Larks, and Eastern Meadowlarks. Red-headed Woodpeckers and Purple Martins also breed here. In winter, unchecked winds distribute snow across frozen sod and brown grass. In winter and during migration, there are raptors, including Rough-legged and Red-tailed Hawks and American Kestrels; and field birds like Horned Lark, American Pipit, Snow Bunting, and Lapland Longspur (in descending order of likelihood

The most reliable of the winter birds, typified by Horned Larks, are those that prefer little ground cover and are found in plowed fields, corn stubble, winter wheat, and pastures. Northern Harriers are seen less often and I have not found Short-eared Owls here, both of these generally preferring more ground cover.

In summer Vesper and Savannah Sparrows, which thrive in low vegetation (alfalfa for example) and on field edges, are common. Grasshopper Sparrows are present but uncommon. They prefer "weedier" habitat, such as unused or lightly grazed pasture, but in Big Valley land does not sit idle for long. In contrast, Horned Larks breed widely in the valley. Their early start to breeding allows use of bare fields early in the season and of the bare soil in cornfields with broods completed before the corn grows very high. In years when snow cover is minimal, Horned Larks can be seen already paired up in mid-February, split off from the foraging flocks of earlier winter.

Since 2001, I have conducted annual Grassland Breeding Bird Surveys in Big Valley. "GBBS" routes are like regular USFW BBS routes but include only 30 stops (3 minutes each) and only grassland specialists are recorded. The average annual number of each species recorded is presented in Table 1. The Bobwhites listed are probably escapees from local farms.

For species associated with shrub, woodlot, and forest-edge habitat, check along Front Mountain and Back Mountain Roads at the edges of the valley, on the flanks of Jack's and Stone Mts., respectively. Forest interior species, including a good variety of breeding warblers, can be found in nearby Rothrock State Forest.

Big Valley has many lightly traveled roads along which one can safely scan for birds. A detailed map such as the Pennsylvania Gazetteer is helpful here because the best birding roads are not shown on a typical state highway map. The route described below includes some of the more productive roads for birds, not to mention being quite scenic. The best roads are those that cross the valley from one mountain flank to the other. Especially good are Kanagy and Garver roads in the northeastern part of the valley and School House and Waynesburg roads in the southwest.

Route 655, a busy state highway, runs the length of the valley from Rt. 322 in the northeast to Rt. 22 in the southwest, a distance of over 25 miles. *This road is decidedly not safe for birding.* Front Mountain Road and Back Mountain Road, which parallel Rt. 655 on either edge of the valley, are less busy but still require caution

The wide-open spaces of Big Valley derive from the intensive agriculture practiced here. Despite the intensive use, the good news is that non-agricultural land development proceeds slowly and pesticide use is less than in non-Amish farmland.

Big Valley is interesting for reasons other than birding. There are a number of "country" type businesses, some noted on the route described below but note also that most businesses here are closed on Sundays.

The biggest town along the route described is Belleville (on Rt. 655), which has two gas station/convenience stores, and which are open on Sundays. Belleville is known for its year-round livestock auction. Except during winter, a renowned farmer's market and flea market are also held there on Wednesdays.

Allensville, towards the southwestern end of the valley (also on Rt. 655), has a restaurant and a small store. To the northeast, located on Barrville Road but just 0.1 mile off Rt. 655, is perhaps the best known business establishment in Big Valley. Peachy's restaurant, butcher shop, bakery, and dry goods store is a great place for birders to take a break (but not on Sunday!).

Kishacoquillas was a Shawnee chief whose village was located (around 1730) near present-day Lewistown. A more famous Native American resident was Logan, the Mingo chief who lived here from1766 until 1771, coexisting peacefully with settlers already there. Logan was respected on the frontier for his advocacy of peace, at least until the later murder of members of his family by frontiersmen in Ohio.

European settlers, primarily Scotch-Irish, came to the valley in 1754. One of the first was James Alexander, ancestor to the current owners of Plum Bottom Farm on Back Mountain Road. Those early settlers suffered occasional setbacks because of Indian hostilities, vacating the valley during the French and Indian War (1756-1758) and again during Pontiac's Conspiracy in 1763.

Short-eared Owl by JVAS member Dick Mock

Some of the Scotch–Irish moved further west early on and today Big Valley is known for its Amish and Mennonite population. Amish farmers began moving to Big Valley (initially near present-day Allensville) in 1790, attracted by its limestone character; similar to the productive farmland they already knew in Berks and Lancaster counties. One source states that by 1840 much of the southern and central portion of the valley was under Amish ownership.

Some areas of Mifflin County were probably in agricultural use a century or more before the arrival of the first Europeans. The Juniata Indians, driven out by the Iroquois during the 1600s, tended cornfields that, although long abandoned, had not reverted to mature forest a century later. Further, as elsewhere in Pennsylvania, Indians may have used fire to "manage" the habitat in Big Valley for game production. Whatever the reason, some areas were rather open and described as "meadows" or "barrens". This is demonstrated by a quote from the Reverend Phillip Fithian who traveled in the valley in 1775. He described a "Barrens" near present-day Allensville.

"There are indeed large plains or, as the inhabitants call them, "Glades," quite bare of timber and covered with shrubs, Ground Oak, Hazels, etc. Some, too, is broken with limestone and some is wholly barren covered with pines."

Thus even in pre-colonial times Big Valley may not have been in the state of unbroken forest as we might envision of Penn's Woods. But nor does the description by Rev. Fithian suggest the agricultural grassland we find there now. It seems likely that through the 1800s the industrious Amish farmers rapidly converted the valley into the "prairie-like" state we now see. I wonder when the first Horned Lark saw fit to stop here?

The Push For Wind Turbines In Bedford County Needs Public Input

By JVAS member Laura Jackson, Everett

A small group of concerned citizens recently spent an evening discussing the possible impact of wind power in Bedford County. Some of our ridge tops have been designated as sites for "excellent development potential", since they have class 5+ winds. A few residents may be surprised to learn this, but hunters, hikers, and birders who spend time on our ridges have felt the power of the winds. Of course, these ridge tops support a huge amount of forest that already plays an important role in our county. Forestland provides clean air and water, wildlife habitats, recreation opportunities, as well as flood control and temperature moderation. At heart is the issue of forest conservation versus the fragmentation and exploitation of our forests by big business. The question that all residents of Bedford County need to ponder is: Do we want to lose our scenic ridge tops to companies that pay little to no taxes, destroy our landscape, and reap huge profits without solving the energy crunch?

It seems to be a replay of what happened a hundred years ago, when forests all over Pennsylvania were stripped of trees. Closer inspection, however, reveals that this new threat goes beyond just cutting trees, since the trees will be replaced with metal towers up to 400 feet tall with huge blades that act as cutting shears - capable of decapitating and killing birds and bats. In the winter, the blades can shoot out huge chunks of ice, making them deadly weapons to anyone or anything within their proximity.

A typical 1.5 MW turbine is several stories taller than the Statue of Liberty, with blades which span a greater width than the wingspan of a Boeing 747 jumbo jet. A wind energy facility also requires a large footprint to install. For example, the Meyersdale, PA Wind Plant site was totally covered in mature forest before construction. A total of 350 acres of forest-interior habitat was lost following construction of 20 turbines (spaced 8 per mile) and the associated road and power lines which covered 2.5 miles of ridge top.

If you have ever hiked on top of our ridges in Bedford County, you know that many are rugged, rocky sites without a lot of level land. Imagine a huge swath cleared for access roads (50 feet wide) going up the mountain sides, bulldozing the land to make it level enough to support equipment carrying the immense components needed to erect wind turbines that are 400 feet tall. Now imagine the impact on our watersheds. Our ridges are an important source of water for at least 13 communities in Bedford County. At the Waymart plant in Pennsylvania, the turbine foundations extend 30-40 feet into bedrock - after it was blasted. Erosion, disruption of water flow, and destruction of our forest will continue with the presence of access roads, power lines, transformers, and the tower sites themselves. According to Eric Rosenbloom, Vermont writer and science editor, a site on a forested ridge top may require large clearings so the turbines operate optimally, since forest cover close to wind turbines creates turbulence which can reduce their wind energy yield.

If you would like to read a detailed analysis of wind power in our area, read Riposo's paper - which can be downloaded from the link listed below. You will understand why wind power companies, like Florida Power and Light, which now owns the Meyersdale Wind Plant in Somerset County, paid no state or federal taxes in 2003, even though it posted profits of over $1 billion. http://www.ussee.org/working_papers/RiposoReevaluatingwindenergyMid-Atlantic.pdf

Decisions regarding siting for wind turbines reside with the township supervisors, since there is no state plan to regulate the environmental impact or location of wind turbines - unless the habitat of a federally endangered species is affected.

Dan Boone, an independent consultant focusing on environmental issues, shared a lot of information with the group regarding wind power issues.

Following are some of the points and concerns discussed by the group:

Wind Power Companies make millions of dollars profit, yet pay very little taxes.

There is a big push to get wind turbines on our ridge tops because large corporations and wealthy investors are able to "shelter" their income and thus avoid paying income taxes that would otherwise be contributed to the federal treasury – essentially requiring the rest of us to carry the load. There is a very lucrative Production Tax Credit which companies are now scrambling to take advantage of before it expires in 2007. The amount of money that can be "saved" by wind energy

developers and investors is enough to cover 2/3 of the cost of putting each gigantic turbine into operation – at least $1-million per turbine will be lost to the federal treasury over a 10-year period. Why do you think wind power companies are interested in Bedford County? They hope to "milk" these tax subsidies to keep from paying their fair share – avoiding tens of millions of dollars otherwise owed to the federal treasury for each project built.

Wind power is unreliable and limited in efficiency.

Many people support wind energy because it is renewable and clean - tapping the wind does not produce any greenhouse gases. However, wind turbines generate electricity only when the wind blows – which means that due to intermittency they are only 30% efficient on an annual basis (as compared to an 80% annual efficiency for a coal-fueled power plant, or a 95% level for a nuclear facility). During the summer months, when demand for power is greatest due to air conditioners, the measurements of wind speed in our region indicate they are at their lowest level – and wind turbines generate on average less than 15% of their rated capacity. To equal the annual power output of the 2,700 MW Bruce Mansfield coal power plant (in 2004), it would require the installation of over 5,000 turbines of the size now operating in PA – covering potentially 600 miles of ridge top. And even worse, to equal the electricity generated by this one facility during August 2004, there would need to be over 10,000 wind turbines - topping more than 1,200 miles of Pennsylvania's ridges. The demand for electricity is growing rapidly; each year the Commonwealth consumes nearly 2% more than the previous year. Over the next few decades the additional demand for electricity in PA is projected to greatly exceed the power output that wind turbines are expected to contribute – even if the maximum of 17,000 are built. Another point to consider is that coal-powered plants must operate continuously, since wind turbines are not a constant source of energy production.

Wind turbines will not reduce air pollution.

Unfortunately, wind energy development of the eastern U.S. will not reduce air pollution. The mercury that is polluting our streams and lakes in PA from coal-burning power plants will continue to rain down upon us, since wind energy development has little potential for backing-down the baseload contribution by coal-fueled power plants to the grid. Wind energy may help mercury emissions from getting worse, but it won't reduce them. The huge tax subsidy provided to the wind industry could be better spent on scrubbers for coal plants, which would be much more cost-effective than wind turbines in actually reducing emissions of toxics and pollutants – as has been shown for a large coal plant at Mt. Storm, WV – see: http:www.csmonitor.com/2005/0317/p11s01-sten.html .

Wind turbines do not promote tourism.

Tourism ranks as an important income for Bedford County. Will the number of tourists decrease if our viewscapes promote wind turbines? This is obviously a concern in other states like North Carolina, which has the Ridge Protection Law, and in Vermont, which has restricted zoning for higher elevation areas. The only land protected by zoning in Bedford County is Bedford Borough and around the airport

Property values will decrease due to noise and light pollution.

Many people moving into Bedford County are attracted to our scenic vistas and unspoiled mountains. Will potential buyers want to purchase property that is marred by the march of wind turbines across our ridge tops? Although a recent letter to the editor suggested that wind turbines are attractive, after a thorough acquaintance is made and the novelty wears off, will that attraction remain? What if a wind turbine were constructed right next to your property line? Could you stand the noise that they generate? Would you get tired of seeing the bright lights that flicker in a strobe effect as the blades rotate night after night? There are no restrictions on how close a wind turbine can be placed to a neighboring property, so companies are locating them as close as 400 feet to adjacent properties. People who live near turbines complain that under certain - but long-lasting - conditions the penetrating low-frequency noise creates a thudding vibration, which travels farther than the higher pitched turbine noises, and which sound like an incessant rumble from a train or motorcycle.

Only the landowners will benefit financially.

Wind power companies offer many enticing monetary incentives to make people think their communities will benefit from wind power. Studies show, however, that there is very little economic benefit. Most of the parts for the wind turbines are made overseas, foreign companies often bring in their own people to install them, and very few people are hired to maintain them. The main person to benefit here is the landowner who sold the development rights. Is it fair for the community to suffer because a few people profit?

Wind turbines kill birds and especially bats, and destroy habitat for other wildlife.

One of Bedford County's best kept secrets is that its ridge tops serve as migration corridors for birds like the majestic golden eagle. Tussey Mountain, which runs through the heart of Bedford County, holds the record for the most golden eagles counted during their spring migration through Pennsylvania. Observers at the Allegheny Front Hawk Watch, on the western edge of Bedford County, have also counted impressive numbers of migrating raptors. Fifty-one golden eagles flew by the site on Nov. 23, 2003.

Thousands of hawks and eagles use Bedford County's ridge tops as migration routes. Since we know that wind turbines kill birds and large numbers of bats, it is unconscionable to site them on ridge tops. A better location would be to place wind turbines on reclaimed strip mines where there is no existing forest habitat. If you would like to see more information regarding this important Bedford County raptor monitoring site, go to: http://people.delphiforums.com/MCCONAUGHY/birding/alfront/alfront.html

Bedford County Citizens must take action at a local level.

In conclusion, we hope our meeting will be the first of many to be held in Bedford County and that this article will inspire dialog among our citizens. Hunters, hikers, outdoor enthusiasts, farmers, and every citizen of Bedford County who values clean water, scenic vistas, forests, and wildlife, **talk** to your township supervisors. Tell them that you want to preserve what we have. Help them understand what is best for their constituents. Our forested ridge tops are a treasure that will be plundered before we know it, unless we take action.

The next meeting will be advertised in the Bedford Gazette for all who want to become educated about wind power in Bedford County. Time and place have yet to be determined, but will be announced soon. A special invitation is issued to our township supervisors. Your decisions will affect our quality of life; the future of Bedford County is in your hands.

Extensive deforestation and massive roadbuilding on ridgetops to accommodate gigantic wind turbines.

THE FOLLOWING LETTER TO THE EDITOR BY JVAS VICE PRESIDENT DAVE BONTA WAS PUBLISHED IN THE ALTOONA MIRROR LAST MONTH

To the editor:

Thanks to *Mirror* staff writer Jennifer Babulsky for her excellent article titled "The Truth About Bats." Because of journalists like her, attitudes about bats have changed from fear to appreciation.

An emerging threat to bats is the proliferation of ridgetop windfarms in forested settings. When located in ridgetop forests, windmills kill large numbers of bats. The ridgetop forest windfarm near Meyersdale kills thousands of bats annually, as do other windfarms on forested ridgetops.

Blair County is home to our state's largest population of the only Federally Endangered mammal in Pennsylvania, the Indiana bat. The only known maternity colony of the Indiana bat in the Commonwealth is found in the mature woodlands near Canoe Creek State Park. The state's largest bat hibernation site is located in Canoe Creek State Park, where 25,000 bats of 6 species spend the winter. The Keystone State's largest bat maternity colony is in the park also, where thousands of people gather each summer to watch the evening emergence of more than 20,000 little brown bats. In recognition of the Canoe Creek area's importance to bats, the Mammal Technical Committee of the Pennsylvania Biological Survey in 2002 designated the Canoe Creek Important Mammal Area, which includes Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain.

In light of the importance of the above-mentioned areas to bats, as well as the fact that the above-mentioned ridges have been designated as Landscape Conservation Areas in the Blair County Natural Heritage Inventory done under the direction of the Blair County Planning Commission and as Greenways in the Blair County Greenways Plan, Brush Mountain, Canoe Mountain, Lock Mountain, and Loop Mountain should be off-limits to windfarm development.

Sincerely,

Dave Bonta

Tyrone

*The **Indiana bat** is the only federally endangered mammal in Pennsylvania. 90% of the entire population survives the winter in just a handful of caves in the eastern United States, including the Hartman Mine on Moore's Hill in Canoe Creek State Park, less than two miles from the proposed windplant on Brush Mountain west of Scotch Valley. The largest maternity colony of the Indiana bat in the Keystone State is centered around Route 22 southwest of the park.*

JOIN JUNIATA VALLEY AUDUBON!

Juniata Valley Audubon membership provides you with the following benefits:

- Notification of Juniata Valley Audubon's exciting activities including nature programs, field trips and other events
- Subscription to the bimonthly chapter newsletter, *The Gnatcatcher*
- Opportunities to participate in conservation projects and environmental advocacy, and have fun!

Become a chapter-only member:_____**Individual:** $15 _____**Family:** $20 _____**Supporting:** $35

_____**Friend of JVAS:** $50 _____**Corporate:** $100

____**Life Membership:** $500– JVAS Life Membership provides you with all the benefits listed above for a once-in-a-lifetime fee of $500.

Name_____

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Mail this form to

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c/o Dr. Stan Kotala, President

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NAMC Coordinator...Dr. Stan Kotala (see above)

JANUARY & FEBRUARY PROGRAMS

January 17, 2006

"Member's Night"- Bring your own slides, pictures, nature-related arts and crafts, poetry—the sky's the limit! Call Stan Kotala at (814) 946-8840 with any questions or equipment needs.

February 21, 2006

"Turtles of the Juniata Watershed"– From life histories to conservation, Juniata College biologist Roy Nagle will give an in-depth look at each of our resident turtle species.

ABOUT JVAS PROGRAMS: Programs are presented on the third Tuesday of each month. They begin at 7 PM in the chapel at Alto-Reste Park on Plank Road, Altoona. Our programs are designed for a general audience, and are free and open to the public.

FEBRUARY FIELD TRIP

January 28 & 29, 2006

New Jersey Coastal Birding– This overnight trip to the New Jersey coast will provide the opportunity to see many over-wintering species of ducks, shorebirds, and even alcids. Areas we will visit will include Barnegat Light, Brigantine NWR, Wildwood, and Cape May. Van transportation will be available. Meet at McDonald's in Huntingdon at 8 AM. Trip limited to 14 participants and is currently filled up. If you would like to go you can be put on the waiting list. Call Dave Kyler at 643-6030 with any questions.

February 25, 2006

Big Valley Manure Chase– Winter birding at its best! Looking for Horned Larks, Lapland Longspurs, and Snow Buntings amongst the cornfields of Mifflin County. Meet at McDonald's in Huntingdon at 9 AM. Bring binoculars. Restaurant lunch.

JVAS Juniata Club River Trips take place according to weather and water levels. If you would like your name added to the Juniata Club roster, contact Helena Kotala at ccwiba@keyconn.net or 946-8840. She will notify you of upcoming trips by email or phone.

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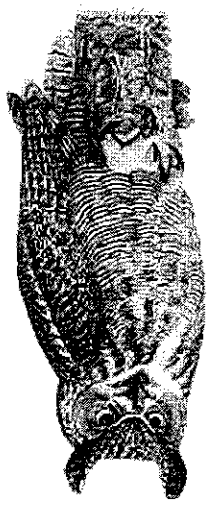
Great Horned Owl

by Louis Agassiz Fuertes



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8/1/2006