

QUITTAPAHILLA AUDUBON SOCIETY NEWSLETTER

FALL 2014

P. O. Box 123, Palmyra, PA 17078-0123

www.QASAudubon.org

Upcoming QAS Events

Join Us! Everyone Is Welcome!

Upcoming Programs . . .

The Quittapahilla Audubon Society holds its programs in the Chapel of the Lebanon Valley Home at 7:30pm every fourth Wednesday of the month from September through April (with the exception of November and December). Due to the holidays, the programs are held another week in these two months. Programs are free and open to the public. They are designed for a general audience and children are welcome when accompanied by an adult.

Lebanon Valley Home is located one half mile east of the intersection of Routes 422 and 934 at 550 East Main Street, Annville, PA. There is limited parking in front of the Home with additional parking available on the adjacent streets. Please use the main entrance at the end of the covered walkway in the front of the Home. The Chapel is handicap accessible.

September, 24 2014

Adventures of our QAS Campers

From Hog Island and Hawaii, our Campers will return to regale us with their tales at our first membership meeting of the 2014-2015 season. Come hear their stories, and support the future of conservation leadership!

October 22, 2014

GLOBAL WARMING – The Science and Impacts on Fish and Wildlife

Although global warming has been studied for over 150 years, it has only been in the past 50 years that scientists have been increasingly raising concerns over

what they see as a major threat to our planet and way of life. In fact, this is one of the few instances when scientists are sounding the alarm while many of our fellow citizens remain unconcerned.

Global warming is here, and observant sportsmen and women, and conservationists, are already seeing its effects. Unless we begin, right now, to reduce greenhouse gas emissions, our children's experience with the natural world will be much different from ours. Although its effects cannot be known with absolute certainty, scientists predict over 40% of the species on earth could go extinct. Despite the solid science, there are some still in denial of a warming planet, there are no skeptics in the natural world. Already, every species of plant, insect, and wildlife that can move north or to higher elevations is doing so.

Speaker, Ed Parry, retired in 2002 after a 30-year career with US Fish and Wildlife Service, where he worked to protect streams and wetlands in Pennsylvania. In 2007, he began working for the National Wildlife Federation on their Global Warming Campaign. He works with hunters, anglers and the conservation community to get our political leaders to take action on global warming.

November 12, 2014

Monitoring Snowy Owls – Nomads of the Arctic

The presentation will review recent research results regarding movement and reproduction of snowy owls from the high Arctic. The audience will witness how we manage to monitor those highly mobile and unpredictable predatory birds throughout consecutive years via a slide show depicting field work situations in this highly remote and hostile environment.

Speaker, JF Therrien, was born 20 minutes from the border with Vermont, in Sherbrooke, QC, Canada. He completed an academic internship at Hawk Mountain Sanctuary in autumn 2002. He has a bachelor degree in biology from the Université de Sherbrooke, a master degree in biology from Université Laval, and a Ph.D. degree in biology from Université Laval. He joined Hawk Mountain Sanctuary as a Senior Research Biologist in September 2011. He is now working on various aspects of raptor conservation science such as satellite tracking of peregrine falcons, turkey vultures, and snowy owls. He is also working on a project monitoring American kestrel breeding populations in addition to monitoring North American migratory raptors passing over the Sanctuary.

December 10, 2014

Member's Nature Slides and Digitals

Join us as members share their favorite slides and digital photos with the group. This is our holiday social, so please bring a plate of holiday treats to share after the program. Drinks will be provided.

And Our Field Trips at a Glance . . .

Please join us for as many of our field trips as your calendar will allow.

September 21, 2014

Walkingstick Walk

Observation of walkingstick insects and other Cornwall mountain top flora and fauna via about a 90 minute walk along old service road. Meet Sunday 2:30 PM at Lebanon K-Mart Parking lot in front of garden section. Hat and sunscreen suggested. Leader Fritz Heilman, 273-0487.

October 12, 2014

Middle Creek Conservation Trail

Walk the Middle Creek Conservation trail looking for migrating & resident birds in the meadows and woods along the trail...after walking the trail will go to Stop 1 and observe waterfowl on the lake. Meet Sunday 8am at the Visitors Center parking area - bring water and dress for the weather. Trip leader Jim Fiorentino - 717-269-0675

November 9, 2014

Stoever's Dam Park Arboretum

Identification and natural history of the arboretum trees. Meet Sunday 3 PM at Stoever's Dam Park Nature Barn parking lot. Leader Fritz Heilman, 273-0487.

December 20, 2014

Christmas Bird Count (CBC)

QAS thirty-fifth annual CBC. Event includes walking and driving to count birds within prescribed area. Contact Fritz Heilman, 273-0487.

January 1, 2015

Lebanon Valley Rail Trail

Start the New Year off birding! Observation of the local wintering birds while walking the rail trail (LVRT). Trip about 2 miles in length and two hours in duration. Dress for the weather and meet Thursday noon at the Sheetz parking lot, south route 72. Leader Jim Fiorentino, 269-0675.

How Much Do You "like" QAS?

QAS is on Facebook! Please stop by and "like" us. We are starting to add content about meetings and field trips as well as links which may interest QAS members. In addition, you can still sign up for the **QAS-Announce** mailing list to receive e-mail reminders for our public meetings, field trips, and other announcements of interest. Just go to our website at www.qasaudubon.org!



QAS Annual Bird Seed Sale

Look for the sale flyer in your mailbox in September or early October for this event – the 36th annual QAS bird seed sale. We will again provide the same great variety of high quality bird seed at competitive prices. All profits will support local QAS projects for youth and environmental education. When you receive your flyer, please invite friends, neighbors, and other bird lovers to also take advantage of this sale. The birds (and the squirrels) thoroughly enjoy the seeds! (Photo by Gary Kinkley)

Welcome to our new QAS members . . . Hope to see you at many of our events!

Gloria Belair, Joseph Branch, Marjorie Brooksher, Larry Brown, Nancy Buttimer, Stephen Carlisle, Joanne Eberly, Lorraine Fake, Christy Fischer, Nancy Gingrich, Warren Hetrick, Diane Hilyard, Elizabeth Kirk, Mary Krall, John Lawrence, Griffyn Longenecker, Joy Merrill, Anne Newman, Robert Pelak, Julie Radwanski, Gloria Roush, Beverly Seaman, James Shields, Samantha Strock, Lorraine Truax, Wendy Turner, Sandra Ursprung, Constance Wagner, Cynthia Wagner, Zantha Weaver, Terrance Weir, Cathy Wetzel, Chuck Witmer

A Word from QAS President Jim Fiorentino

Fellow QAS members,

As I begin my second term as the President of the QAS, I would like to thank all past, present, and incoming Board members. I would also like to take a little time to talk about our QAS Banquet. To begin, I want to thank the banquet committee, anyone who donated an item for the silent auction, our guest speaker, Sarah Sander, and all of the members that attended the May, 28th banquet. It was the 31st annual QAS banquet. For many years now, our banquets have been held at the Friendship Fire Hall in Lebanon. The banquet committee did another excellent job in having everything set up and ready to go, and as usual the food at the Friendship was excellent! Sarah Sanders program – Fireflies of the Eastern US – was very fascinating and well received by everyone in attendance.

I would also like to extend an additional special thank you to our outgoing Banquet Chairperson, Karen Light, and her team of dedicated committee members for their past service. Karen has served as banquet chairperson for over 20 years and has done an outstanding job – her organizing and leadership abilities will be greatly missed.

Additionally, I offer my personal thank you to Gerry Boltz for reciting the QAS traditional Banquet Invocation and all present Board members and Officers for their continued service and commitment to QAS.

I look forward to a new year of QAS Field Trips, Membership Programs, and Board Meeting in the months ahead. I hope that all of you enjoyed a great summer, and I look forward to seeing you at future QAS events!

Memorial Lake and Swatara State Park Are Friendly Places

The Friends of Memorial Lake and Swatara State Park host habitat days, field trips, and other activities in our beautiful State Parks in Lebanon County. More information on the Friends group and upcoming activities can be found at www.friendsofswatara.org. QAS holds both solo and joint field trips in the parks every year. There have been many new upgrades to the parks over the last year including better parking, better signage, and trail improvements throughout. The name may have changed, but the mission is still the same – so please come out and rediscover our two great state parks!

HersheyPark Fundraiser – Rosemary Spreha

QAS will once again participate in the HersheyPark Food Service fundraiser. Volunteers work at food booths in the Park, Stadium, or Giant Center. HersheyPark makes a donation to QAS for every hour worked and the volunteer receives a voucher good for a day pass at the

park. Shifts are from 3 to 5 hours in length. If you are interested in helping with this fundraiser, please contact Rosemary Spreha at rspreha@gmail.com or 717-657-0271.



On the Web

We will begin this installment of On the Web with a link inspired by our banquet program this past spring which was entitled Fireflies of the Eastern United States by Sarah Sander. Ms. Sander encouraged attendees to check out the Museum of Science's Firefly Watch which is a new citizen science project to track population trends of fireflies (AKA lightning bugs). You can check out the project at <https://legacy.mos.org/fireflywatch/>, and join in the fun!

Webcams are popping up everywhere these days – offering us glimpses into various aspects of wildlife behavior. Many of the best revolve around nest sites, but as we head into the fall and winter, check out these cams from the Monterey Bay Aquarium which are actively monitoring year-round!

<http://www.montereybayaquarium.org/animals-and-experiences/live-web-cams/aviary-cam>

<http://www.montereybayaquarium.org/animals-and-experiences/live-web-cams/open-sea-cam>

<http://www.montereybayaquarium.org/animals-and-experiences/live-web-cams/splash-zone-penguin-cam>

Lastly, here is a Youtube video just for fun: <https://www.youtube.com/watch?v=6iFufXkDBEQ>.

Whether you are a birder, an amateur entomologist, a botanist, or just a *naturally* curious person, there are new websites waiting out there to be explored. Share some of your favorites with us by emailing your links to qas@qasaudubon.org. We may share one of your links in a future newsletter. Also, remember that if you don't want to type in all of these long links, you can simply cut and paste them from the online version of our newsletter archived on the QAS website!

Check out the QAS Grant Program!

The grant applications are online. We have approved several new grant applications already this year, but we accept them year-round! Check out the QAS website if you or someone you know has a project that may qualify for a QAS Grant!

April 13, 2014 – Middle Creek Wildlife Management Area – Fritz Heilman

We had 10 participants on about a 2 ½ hour visit to Middle Creek Wildlife Management Area. Twenty-five



bird species were observed including 1 Osprey, 3 American Kestrel, and the resident Bald Eagle.

Several dozen snow geese were still present.

Duck highlights included Northern Shoveler, Ring-necked, Gadwall, and Wood Ducks. While observing

the Great Blue Heron rookery, with about 27 nests and 20 or so Great Blue Herons, an adult Red-headed Woodpecker was

noted in front of and to the left of the main section of the rookery – the woodpecker was working on a section of a dead tree.



Other highlights included American Toads trilling, Green Darner Dragonflies, and a single Cabbage White Butterfly on the wing.

One last note - as I was leaving after the trip, I observed two Wild Turkeys wandering about. Many thanks go to Jim Fiorentino for co-leading this trip. (Photos by Fritz Heilman)

May 10, 2014– Pennsylvania Migration Count – Chuck Berthoud

We all had a good day on May 10. Last year was a great day for everyone so we were expecting a little bit of a letdown this year. That said, for Bob Peda and I, this year provided great looks at a number of warblers and steady birding all day. We ended up feeling very satisfied with our efforts.

Our biggest highlight this year was David's team of Jarrod Derr, Chris Bortz and Brian Weaver finding 104 species. From Dave: "4 Sora (2 males were calling naturally at the Car Care Center with a female discussing the matter with them – potentially up to 5 in that location alone but conservatively 3), 1 Osprey, 2 Common Loons, 2 Ruddy Ducks, 2 Horned Grebes, 5 Red-headed Woodpeckers, 2 Willow Flycatchers, 15 Eastern Wood Pewees, 1 Swainson's Thrush, 27 Species of Warblers including Cerulean (from 2nd Mountain Hawk Watch), Bay-breasted, Cape May, Wilson's, Canada, Worm-eating, and Yellow-breasted Chats." Wow 27 warbler species!

Other team's highlights:

Randy Miller: Northern Bobwhite and 11 Yellow-throated Vireos – a County high record!
Johnathan Heller: 12 Whip-poor-wills, 5 American Woodcocks, Black-billed Cuckoo, American Bittern

Gerry Boltz: discovered good shorebirds at a flooded field in Iona and at the Snitz Creek

Wetlands on East Oak Street with 7 Semipalmated Plover, 34 Lesser Yellowlegs, 3 Pectoral Sandpipers, and 1 Dunlin
 Chuck Berthoud: Merlin and Barred owl
 Susan Wheeler: 2 Red-breasted Nuthatch, Prothonotary Warbler, a late American Tree Sparrow, and 6 species of woodpeckers
 Fritz Heilman: White-crowned Sparrow and Blackpoll Warbler (these were early this year)
 Rosemary: 4 Acadian Flycatchers, 60 Red-eyed Vireos, 1 Hermit Thrush
 Jim Logan: enjoyed nice warbler and migrant bird fallout around Lake Strause

Thank you to all of the counters for your efforts!

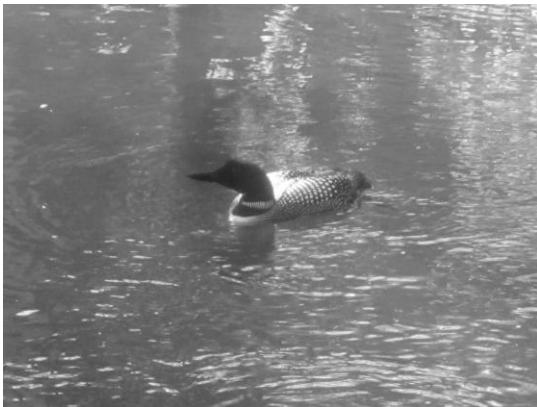
May 18, 2014 – Birdathon – Fritz Heilman

I would like to extend thanks to all who assisted and or contributed to the annual Birdathon fundraiser this year. We raised \$480.00, which will be directed towards our educational efforts!

For those who missed the report at the Banquet, my team had 77 species with 9 warblers in that number. Dave McNaughton also had a team and they tallied 120 species. So Dave took home the Birdathon trophy again – congratulations Dave and thanks again for your team's effort and results!

A surprise find for my Birdathon team was a common loon observed in a feeder stream to Hammer Creek (Walnut Run I believe) which is adjacent to the Pumping Station

parking lot. I hope this bird was able to get a long enough runway to take flight again! Many of



Dave's team's highlights are noted in Chuck Berthoud's migration count report.

Thanks again to all who made donations to this effort! (Photo by Fritz Heilman)

June 8, 2014 – Middle Creek Wildlife Management Area – Jim Fiorentino

We had four attendees for our Sunday morning field trip to Middle Creek Wildlife Management Area. The weather was beautiful for our 2-1/2 hour tour of the

various habitats that Middle Creek provides. We had a total of 55 species...including Blue Grosbeak! Other highlights included Yellow Billed Cuckoo, Wood Duck, a continuing Snow Goose (injured), Grasshopper, Song, Field, & Swamp sparrows, and Eastern Meadowlark. The entire area was alive with activity as various species participated in various stages of courtship, nesting, rearing young, protecting territory, and foraging for food. Middle Creek never disappoints when it comes to highlighting the activities of our avian fauna no matter what season you visit!

July 6, 2014 – Middle Creek Wildlife Management Area – Jim Fiorentino

We had nine participants for our field trip to Middle Creek Wildlife Management Area. The Blue Grosbeaks provided a welcome, if brief, highlight for those in attendance. Here is a copy of the trip list from eBird (go to www.eBird.com to create your own trip lists!)

Middle Creek WMA (IBA), Lancaster, US-PA

Jul 6, 2014 7:45 AM - 10:55 AM

Protocol: Traveling

4.0 mile(s)

45 species (+1 other taxa)

Snow Goose 2 Injured holdovers

Canada Goose 52

Wood Duck 11

Mallard 1

Double-crested Cormorant 4

Great Blue Heron 6

Great Egret 1

Black Vulture 1

Turkey Vulture 1

Red-tailed Hawk 1

Mourning Dove 3

Ruby-throated Hummingbird 2

Red-bellied Woodpecker 3

Downy Woodpecker 1

Northern Flicker 1

Willow Flycatcher 2

Eastern Phoebe 1

Great Crested Flycatcher 1

Eastern Kingbird 3

Blue Jay 5

American Crow 2

Tree Swallow X

Barn Swallow X

Carolina/Black-capped Chickadee 1

House Wren 3

Eastern Bluebird 16

Wood Thrush 2

American Robin 1
 Gray Catbird X
 Northern Mockingbird 1
 Cedar Waxwing 2
 Common Yellowthroat 11
 Yellow Warbler 4
 Chipping Sparrow 1
 Field Sparrow 5
 Grasshopper Sparrow 2
 Song Sparrow 4
 Northern Cardinal 3
 Blue Grosbeak 2
 Indigo Bunting 2
 Bobolink 14
 Red-winged Blackbird X
 Eastern Meadowlark 8
 Brown-headed Cowbird 3
 House Finch 2
 American Goldfinch 18

July 27, 2014 – Butterflies, Dragonflies And Their Habitat – Fritz Heilman

We had eleven participants on this approximately ninety minute visit to Middle Creek Wildlife Management Area for the observation of butterflies/dragonflies and their habitat. The butterfly garden at the visitor center was in excellent condition. However, butterfly numbers were low as they seem to be late this year. Nevertheless, we had some good observations of among others, tiger and spicebush swallowtails, a great-spangled fritillary, silver-spotted skippers and both the hummingbird and snowberry clearwing moths. Male and female Ruby-throated Hummingbirds were visiting the feeders at this garden as well.

Dragonflies seen by Sunfish Pond included common whitetail, widow skimmer and eastern amberwing. A black saddlebag dragonfly was observed in the flower meadow in front of the visitor center as were other butterflies including eastern tailed-blue. And down by the shady stream just in the woods off the road was the reliable observation of the ebony jewelwing damselfly.

Plants in bloom included many specimens of the native mint, Wild Bergamot (*Monarda fistulosa*), and dozens of Joe-Pye Weed (*Eupatorium* sp.), not yet open.

August 3, 2014 – Middle Creek Wildlife Management Area – Fritz Heilman

Two participants attended Sunday's field trip to Middle Creek Wildlife Management Area for the observation of resident and any early migrant birds with

trip leader Jim Fiorentino for about a 2 ½ hour tour of the Middle Creek grounds. Although the weather did not look promising on the drive to the site, once there the precipitation held off and we had a good morning of birding (this has happened before where the weather at the site is more favorable than what is found at the point of departure). All noted birds were in the Lancaster County side of the refuge.

We had a flyover of an adult and an immature Bald Eagle. We had a nice find of a male Orchard Oriole just off the main road to the west not far from the Willow Point access road. The bird was perched atop a four foot high plant. Later on, about a half mile past stop three, we observed a male Blue Grosbeak singing for an extended time.

Also noted were three Snow Geese (remnants from the thousands that had visited here back in March). Five Great Egrets were tallied at various locations. Two Grasshopper Sparrows were observed in the fields just opposite stop three (this is a typical location to see this species). Four Belted Kingfishers were observed – two playing tag down by the dam's spillway.

As we watched an immature Red-tailed Hawk fly past us with a Northern Mockingbird in pursuit, we were treated to quite a sight when the mocking bird landed on the back of the hawk and held that position for about two seconds as it attempted to really harass the young red-tail.

As for plants there were many in bloom including the native mint, Wild Bergamot (*Monarda fistulosa*); the invasive wetland plant Purple Loosestrife (*Lythrum salicaria*); a Joe-Pye Weed species (*Eupatorium* genus); and the neat native wetland plant, Blue Vervain (*Verbena hastata*).

Conservation Contributions

At the May 8th Board meeting, your QAS Board voted in favor of several financial contributions to conservation initiatives.

- \$300 was contributed to Audubon Pennsylvania to support their conservation and education work throughout the Commonwealth.
- \$250 was contributed to Bat Conservation International for their continued efforts to combat White-nose syndrome and for other bat-related issues.
- \$500 was contributed to the Lebanon Valley Conservancy for their educational efforts as well as the effort to create stopover habitat for Tundra Swans around Middle Creek.
- \$400 was contributed to the Ned Smith Center's Northern Saw-whet Owl research project which

has long been supported by QAS and several members as volunteers.

- \$600 was contributed to support the Envirothon for Lebanon County students.



Stormy Weather Meeting Cancellations

When bad weather forces our chapter meetings to be cancelled, you can hear about it on CBS-21 or CW-15. These TV stations have agreed to broadcast cancellation announcements. They will also have this information available on their station websites: www.cbs21.com and www.cw15.com.

The Broad-winged Hawk Project – edited from the Broad-winged Hawk Project Facebook page

**Editors Note: QAS made a contribution this past spring to Hawk Mountain's new Broad-winged Hawk study.*

Hawk Mountain Sanctuary launched a new study on breeding and migration ecology of Broad-winged Hawks using nest observations and satellite telemetry.

ABOUT BROADWINGS:

The Broad-winged Hawk is a small raptor that nests in large, unbroken forests of eastern and central North America. Each autumn they vacate North America and travel thousands of miles to winter in Central and South America. Little is known about their habitat needs en route or their migration and wintering ecology. In this study, we hope to observe and satellite-track Broad-winged Hawks nesting in Pennsylvania to learn about habitat and behavior year-round. The study is being funded in part by private donors (see below), by Hawk Mountain members, and by State Wildlife Grant funding through Pennsylvania Game Commission

BROADWING HAWKWATCHING:

Hawk Mountain Sanctuary is one of the best locations in northeastern North America to view the annual fall migration. During migration large flocks or kettles, composed of hundreds or thousands of Broad-

winged Hawks are seen at hawk-watch sites throughout the United States. To witness this great spectacle at Hawk Mountain visit the Sanctuary in mid- September when we can observe more than 1,000 Broadwings in one day.

PROJECT GOALS:

1. Identify Broad-winged Hawk migration routes and migration behavior in autumn and spring, identify the stop-over and over-wintering sites, overall range, and habitat used during winter.
2. Compare nesting behavior, migration patterns and timing of birds from within the same nest and from nests of the same region, including departure and arrival times, distance traveled daily, migration routes, and wintering region.
3. With data gathered, publish and publicize results, work with government officials, local residents, and conservation organizations across the regions used by the birds to protect critical migration and wintering habitats.

SUPPORT THE STUDY:

Supporting a great cause is rewarding on its own, but who doesn't love supporting a cause that provides great perks?! We have created several project sponsorship levels, all with donor benefits in thanks for their generous contribution. From visits to the world-famous Hawk Mountain Sanctuary, to naming a bird and following it through its life cycle, there are opportunities for everyone. Get involved at any level by calling Dr. Laurie J. Goodrich, Hawk Mountain Senior Biologist, at 570-943-3411 x 106 or goodrich@hawkmntn.org

LEARN MORE:

<http://www.hawkmountain.org/science/broadwing-tracking/page.aspx?id=4456>

<http://thebroad-wingedhawkproject.blogspot.com/>

https://www.facebook.com/pages/The-Broad-winged-Hawk-Project/706218866079278?ref=br_tf



Wanted: Campers for Summer 2015 –

Rosemary Spreha

QAS is looking for qualified local students to attend nature-related summer camps. Scholarships are available for students in first through eleventh grade. Anyone

interested in attending summer camp and applying for a QAS scholarship needs to choose a camp appropriate to their age group and submit a scholarship application to QAS. Updated applications will be available this fall online at www.QASAudubon.org.

Suggested camps include ZooAmerica Day Camp, Wildlife Leadership Academy- PA Brookies, PA Drummers and PA Bucktails, and Hog Island Audubon Camp. Parents are responsible for a portion of the camp tuition and transportation to and from camp.

Sponsors Always Appreciated for Audubon Adventures for Classrooms

Each year, students in classrooms in Lebanon County and the Hershey/Hummelstown area benefit from reading *Audubon Adventures*. This activity helps them to improve their informational reading skills and broadens their awareness of the environment. The classroom kits are provided by our local Quittapahilla Audubon Society and are sponsored through donations.

If you would like to continue making this valuable resource available to local children, please complete the form below and mail it to QAS. A label indicating your sponsorship will be placed on the *Audubon Adventures* kit.

AUDUBON ADVENTURE SPONSORSHIP FORM

Yes, I wish to sponsor an *Audubon Adventures* classroom for a donation of \$45. I understand a label indicating my sponsorship will be placed on the kit.

Your Name: _____

Address: _____

City: _____ State: _____

Zip Code: _____

Mail to: Quittapahilla Audubon Society
PO Box 123
Palmyra, PA 17078

Penn State: Conventional Drilling Has Altered Bird Communities In

Pennsylvania – from the PA Environmental Digest

(<http://www.paenvironmentdigest.com/newsletter/default.asp?NewsletterArticleID=28849>)

Conventional oil and gas development in northern Pennsylvania altered bird communities, and the current massive build-out of shale-gas infrastructure may

accelerate these changes, according to researchers in Penn State's College of Agricultural Sciences.

The Commonwealth's Northern Tier -- one of the largest blocks of Eastern deciduous forest in the entire Appalachian region -- is an important breeding area for neotropical migrant songbirds. These diminutive, insect-eating creatures, which breed in Pennsylvania and winter in Central and South America, contribute greatly to the health of forests.

But they are being negatively affected in areas where there are high densities of shallow oil and gas wells, says Margaret Brittingham, professor of wildlife resources, who conducted a study of bird communities in the Allegheny National Forest.

The national forest, on the extensively forested Allegheny Plateau in northwestern Pennsylvania, has more than 14,000 active oil and gas wells. Although the footprint of a shallow well is much smaller than the immense Marcellus Shale well pads now being built across the region, clusters of shallow wells, service roads, pads and pipelines create networks of disturbance that fragment forests, changing songbird communities, Brittingham explained.

"The cumulative effect of many small-scale disturbances within the forest is resulting in the homogenization of bird communities, with species that inhabit the interior forest, such as black-throated blue warblers, ovenbirds and Blackburnian warblers being pushed out, and species that prefer living in edge habitat and near people and development, such as robins, blue jays and mourning doves, moving in," she said.

"Biotic homogenization is a subtle process by which generalists replace specialists, with common and widespread species tending to become more abundant and habitat specialists declining. Our results revealed changes in avian guilds resulting from oil and gas development and suggest that a loss of community uniqueness is a consequence."

The study, done in collaboration with the U.S. Department of Agriculture's Northern Forest Research Station, took place over three years. Lead researcher Emily Thomas, at the time a graduate student advised by Brittingham, surveyed birds in 50-acre blocks selected for their varied amount of oil and gas development.

Thomas completed her master's degree in wildlife and fisheries science and is currently an instructor in the wildlife technology program at Penn State DuBois.

In a recently published issue of the Journal of Wildlife Management, the researchers documented the presence or absence of different songbird species in a range of landscapes, including undisturbed forest, low-density oil and gas development, and high-density development. They catalogued the abundance and diversity of songbirds in the study areas, which spanned

two types of forest -- northern hardwood and oak.

"We wanted to find out what the well pads, roads, pipelines and other openings created by oil and gas development are doing to bird populations," said Brittingham. "We compared and contrasted the abundance and diversity of birds near well sites to bird communities in reference sites far away from disturbances in the big woods, and what we found was compelling."

Forest interior species declined in proximity to the wells and at a rate that was roughly proportional to the intensity of gas development. Songbird species that prefer early successional habitat increased in abundance on the edge of gas development.

In addition, Brittingham noted, the generalist bird species that do better around people and tend to be common wherever there are people or development were more abundant near oil and gas development than within undisturbed forest -- potentially displacing the forest specialists.

The expansive development of Marcellus Shale gas, which began within the core forests of northcentral Pennsylvania around 2007, is increasing exponentially. Deep, horizontal shale gas wells differ substantially from shallow, conventional oil and gas wells in many ways.

Shale-gas well pads are immense but occur at a much lower density. Drillers install pad substrate of stone to support heavy equipment, and the drillers use a much greater quantity of water for hydrofracturing. That technology demands greatly increased levels of truck traffic on wider, more highly engineered roads.

Brittingham and her students are currently studying the effects of shale-gas development on birds to determine how it affects avian communities.

"Birds are easy to study and survey to gauge the impacts of gas development because they are abundant, respond quickly to habitat change and are early indicators of problems," she said. "The bottom line is we are going to have resource extraction in this state, but the forests on top of it are providing clean water, clean air, climate regulation and a host of other ecological values.

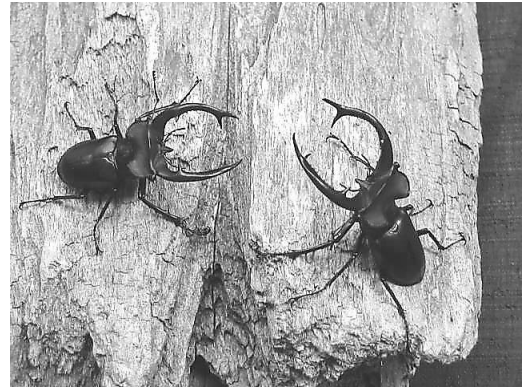
"We need to maintain them as healthy, functioning ecosystems while extracting the gas. We hope our research will help to determine where thresholds of change occur and to identify areas where gas development should be avoided or minimal at best to protect these valuable ecological services that are provided free-of-charge to all of us."

The USDA Bureau of Forestry funded this work. For more information, contact Dr. Brittingham 814-863-8442 or send email to: mx21@psu.edu. (Photo by Marcellus Air from <http://www.marcellus-shale.us/fragmentation.htm>)

Photos in the Wild!

**Editors Note: Here is a new feature for our newsletter -- please let us know if you like it.*

Several of our QAS Members have been gracious enough to share some of their nature photography with us. Here are some of their recent contributions:



First up we have a photo of two Giant or Elephant Stag Beetles (*Lucanus elaphus*) from Fritz Heilman!



Here we have a gorgeous Polyphemus Moth (*Antheraea polyphemus*) captured by Rosemary Spreha!



While our previous contributions can commonly be found in PA, this Marabou Stork was photographed in Sub-Saharan Africa by Robert Pelak

Would you like to share your photos with us? Email them to cathartesaura@live.com with whatever other information you would like to share.

The Moonbirds Fly On: Famous Red Knots B95 and YY1 Seen at Delaware Bay

Bay – Haley Jordan from

<https://www.manomet.org/newsletter/moonbirds-fly-famous-red-knots-b95-and-yy1-seen-delaware-bay>

The iconic Red Knot shorebird B95 – named for the band attached to his upper left leg – has been spotted again on the Delaware Bay.

Now at least 21 years old, B95 is the oldest *rufa* Red Knot on record. In his lifetime, the famous shorebird has flown the equivalent of the distance between the earth and the moon and more than halfway back, earning him the nickname “Moonbird.”

He was seen and photographed by Argentinian researcher Patricia Gonzalez in late May at New Jersey’s Reeds Beach. Gonzalez was the one who gave him his famous orange B95 flag in November 2001, when he was caught for the second time six years after he was first banded in February 1995. “It’s incredible . . . a miracle,” Gonzalez said in a recent interview with the *Philadelphia Inquirer*.



In 2012, B95 was featured in a critically-acclaimed book by author Phil Hoose titled “Moonbird: A Year on the Wind with the Great Survivor B95.”

Gonzalez also saw and photographed a different iconic Red Knot – whose band reads YY1 – in Delaware’s Mispillion Harbor on May 22. Another Moonbird, YY1 was first banded as an adult in March of 1998, making her at least 18 years old.

B95 and YY1 are among tens of thousands of Red Knots who rely on the Delaware Bay as a spring migratory stopover site. Seventy to 80 percent of the *rufa* Red Knot subspecies stops at the Bay each spring to rest and refuel as they migrate from the southern tip of South America to their Arctic breeding grounds – a one-way trip of nearly 10,000 miles.

The Delaware Bay became the first designated site in the Western Hemisphere Shorebird Reserve Network in 1986 for its importance to Red Knots and many other migratory shorebird species, including Semipalmated Sandpiper, Sanderling, Ruddy Turnstone, Dunlin, and Short-billed Dowitcher.

Scientists estimate that when B95 was first banded in 1995, there were more than 150,000 *rufa* Red Knots stopping at the Delaware Bay each spring, a number

which decreased by about 80 percent by 2007. One factor that contributed to this decline was the overfishing of horseshoe crabs for eel and conch bait in the 1990s. The crabs’ eggs serve as a primary food source for Red Knots and many other shorebirds during their spring stopover at the Delaware Bay.

In recent years, beach restoration projects and restrictions on horseshoe crab harvests have helped to stem declines in numbers of horseshoe crabs and Red Knots at the Delaware Bay.

The Celebrate Delaware Bay Network, which is coordinated by Manomet, provides Delaware bayshore residents and visitors to the area with opportunities to take action to help protect the horseshoe crabs and shorebirds and become stewards of the Bay and its rich resources.

“Many shorebird species have experienced significant population declines in recent decades,” said Laura Chamberlin, coordinator of the Celebrate Delaware Bay Network. “B95 and YY1’s incredible stories of survival inspire us to continue the important work we are doing on a hemispheric scale to investigate these declines and recover shorebird populations.”

Visit the Celebrate Delaware Bay website and facebook page to stay up to date on the shorebird research efforts at the Delaware Bay and to learn how to get involved. (Photo by Patricia Gonzalez from <https://www.manomet.org/newsletter/moonbirds-fly-famous-red-knots-b95-and-yy1-seen-delaware-bay>)

QAS Needs You!

If you can give a little bit of your time to QAS, please consider becoming a board member, an officer, or a committee chairperson. Your help will be welcome in any capacity – even if you only have a little bit of time to help. The reach of QAS is only limited by the abilities and contributions of our members. Our nominating committee will be forming soon, but you can talk to any officer or board member anytime about your interest in volunteering. **We would love to welcome you to the QAS team!**

QAS Winter Newsletter Deadline

If you have an item or article you would like to submit for inclusion in the next issue of the Quittapahilla Audubon Society Newsletter, please send them to Gary Kinkley by November 21, 2014. Articles may be emailed to cathartesaura@live.com or mailed to him at 3 Clark Road, Annville, PA 17003. Comments are also welcome. This is your chapter and your newsletter, and we want to hear from you!

LEAVE A LEGACY FOR QAS

You, as a member or friend of QAS, can leave a legacy that will help save the special areas you have explored and loved long after you are gone. Remember Quittapahilla Audubon Society, your LOCAL Audubon connection, through a bequest in your Will or through a gift annuity that will specifically support QAS programs while paying you a monthly income for life.

To learn more about how you can make a bequest and create a permanent legacy in your name or in someone's memory, as well as tax benefits for planned giving options, please contact your attorney or financial advisor.

In supporting a cause that you hold dear, you can have peace of mind that your time on this planet has mattered.

Chapter-Only Membership Application Information

Quittapahilla Audubon Society offers a local Chapter-Only membership that differs from the current National Audubon membership in these ways:

- 1. The annual fee of \$20.00 will go directly for QAS activities only.
- 2. The membership period runs from July 1st to July 1st, regardless of when you join.
- 3. You will receive the chapter newsletter informing you of upcoming events, but you will not receive the *Audubon* magazine.

If you are interested, please issue a check to QAS for \$20 and mail to: Chapter-Only Membership, c/o Jim M. Logan, Chairman, 810 Hill St., Lebanon, PA 17046. Do not mail to the National membership address in Palm Coast, FL.

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The QAS Board meets at 7:00 p.m. on the second Tuesday in January, March, May, July, September, and November at the Lebanon Valley UCC Home, Annville, PA. Meetings are open to interested persons. If you would like to attend a meeting or are interested in finding out about any of the open positions listed here, please contact Gary Kinkley, President.

Please send **ADDRESS changes and corrections** to Jim M. Logan, 810 Hill St., Lebanon, PA 17046.

**National Audubon Society
CHAPTER MEMBERSHIP APPLICATION**

Local Chapter Quittapahilla Audubon (C0ZU16OZ)

Yes, I would like to join. Please enroll me as a member of the National Audubon Society and my local chapter at the **INTRODUCTORY MEMBERSHIP** cost of \$20. Please send AUDUBON magazine, my membership card, and the chapter newsletter to the address below.

Name: _____

Address: _____

City: _____ State: _____ Zip: _____

Introductory Membership \$20.00

My check for \$_____ is enclosed.

Please make all checks payable to:

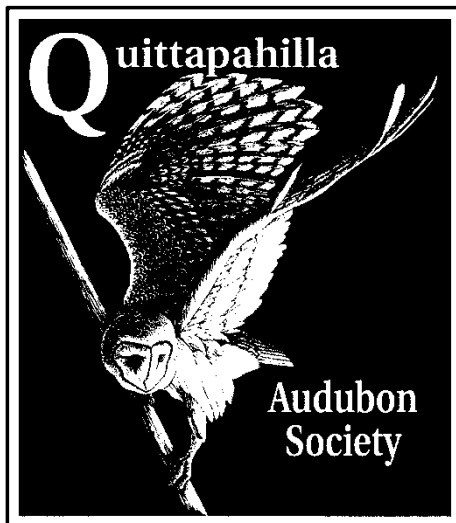
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