



West Virginia Breeding Bird Atlas II News and Updates - 2013



Summarizing 2012 and Planning for 2013!

73,026 Observations and Counting!

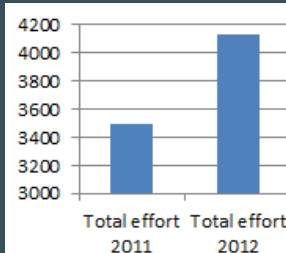
After many hours of hard work in and out of the field in 2012, we are very pleased with the results! We have made significant headway in targeted regions of the state, and total submitted observations for priority blocks only now exceed total submissions for the first atlas by almost 30%. A clear picture is now beginning to emerge for many species, and remaining gaps in our coverage are becoming more apparent.

Progress in 2012 is shown below and at right. In short, we had more people atlas-ing in more blocks for longer periods of time compared to 2011. In addition to survey work in southwestern counties, we realized significant gains in the Little Kanawha region as well as the Eastern Pan-handle and the Greenbrier Valley. Over 100 abundance point-count surveys were completed, and we held two very successful block-busting events. See following pages for details!

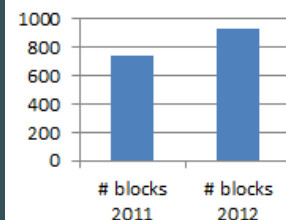
Some changes for 2013:

In November, a planning meeting was held to strategize and plan for the 2013 field season. In addition, we use these meetings as opportunities to revisit persistent questions and concerns on a wide range of atlas topics. An email will be sent out with many specifics later in the winter, but some of these include:

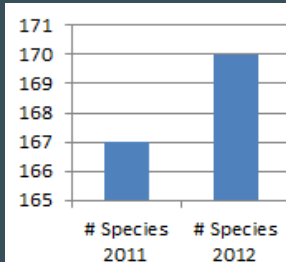
- ▶ Amended guidelines for entering codes for specific species.
- ▶ Removal of certain species from the list of "bolded birds" that require additional documentation.
- ▶ Greater focus on targeting specific species and species guilds.
- ▶ Owned priority blocks that do not currently have sufficient coverage will be targeted.



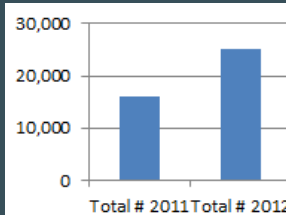
Effort in 2012 totaled 4131 hours. Logging effort assists us with project funding.



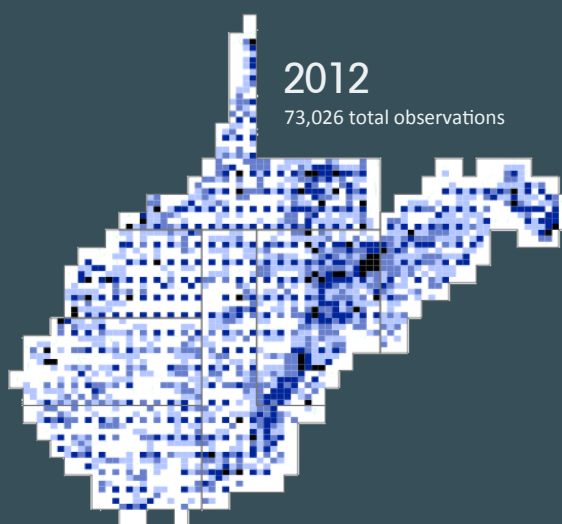
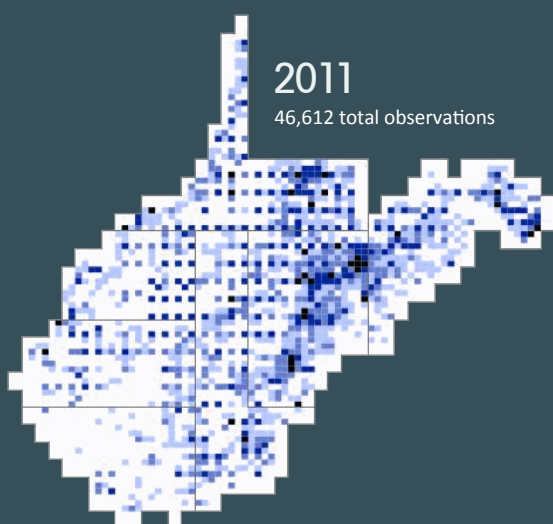
934 blocks received data from 101 atlasers in 2012. 98 atlasers entered data in 2011.



Number of species recorded rose slightly, to 170. 167 species were noted in 2011.



A total of 24,989 observations were submitted in 2012, exceeding 2011 by 36%.



The 2012 field season was filled with many pleasant surprises and a few Disappointments. We targeted specific regions and specific species and focused heavily on abundance point-count surveys. We also noted a few firsts, and continued to confirm species trends - both positive and negative.

A couple firsts for the atlas...

Northern Harrier was confirmed for the first time, in Canaan Valley National Wildlife Refuge. The breeding attempt appears to have been successful!

Upland Sandpiper was detected in Grant County in the same block as it was found in the first atlas. A subsequent report suggests that breeding was successful.

Trends and patterns are becoming more apparent. Among many:

Yellow-bellied Sapsucker, Yellow-throated Warbler, Yellow-rumped Warbler and select other species are showing marked expansions in both range and abundance. **Red-headed Woodpecker** and **Cliff Swallow** are among a short list of species that will be removed from the rare list because of this.

Grasshopper Sparrow, though declining statewide, has been increasingly found on reclaimed mine sites in the Southwest and Teays Valley regions.

Eastern Whip-Poor-Will and **Common Nighthawk** both appear to be suffering local declines statewide.

Common Raven is clearly continuing its upward trend in both distribution and abundance.

Cerulean Warbler appears to be largely absent from the Northern Panhandle relative to the first atlas, perhaps reflecting ongoing development and changes in land use. This contrasts with apparent gains in Preston, Randolph, Tucker, and Grant counties.

Boreal specialists in many cases (but not all) appear to be stable or increasing with continued regeneration of the red spruce ecosystem.

Blockbusting events were a big success...

Volunteers and staff spent two long weekends focusing on specific areas near **Point Pleasant** and **Harrisville**. Quite a few blocks were worked up and abundance point-count surveys completed.

Species-specific targeting helped on multiple fronts...

A systematic effort to target **Loggerhead Shrike** in the Greenbrier Valley region yielded disappointing results for the species in question, but huge gains for the atlas in a number of ways. We greatly expanded our coverage for **Golden-winged Warbler** and generally put the northern half of the valley on the atlas map. The difference can clearly be seen on page one. A similar survey will be conducted in Grant and Hardy counties in 2013.

Data sharing and acquisition from external sources...

We were able to add significant amounts of data to the atlas from various external sources. This has been particularly helpful with regards to adding coverage for the abundance point-count survey component of the atlas. We expect to continue to add data from these and other sources in 2013.



Susan Olcott

Red-headed Woodpecker, North Bend



Kieran O'Malley

Barn Owl, Hardy County



Richard Bailey

Killdeer Nest, Elkins



Susan Olcott

Cliff Swallow Colony, Marshall County

At the beginning of 2012, large numbers of blocks remained with no data in the Southwest and Teays Valley regions. Reasons for this include low population and few birders, a scarcity of easily-accessible public land, difficult terrain, and challenges with accessing important habitat on privately-owned land. During field season, atlasers drove many miles and spent many hours conducting fieldwork in the rugged landscapes of Wayne, Mingo, Logan, Boone, McDowell, Raleigh and Mercer counties. Point-count surveys and general atlas-ing were completed on 46 blocks.

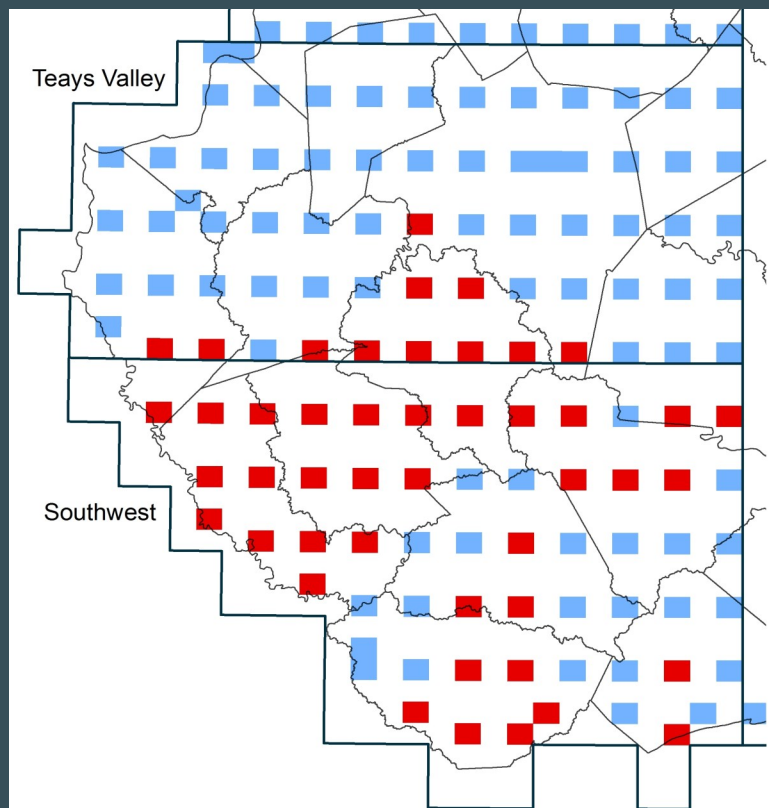
In conducting the work and looking at the results, we've noticed, among other things:

- ▶ Grasshopper sparrow appears to be utilizing increasingly available grassland habitats created during the mine reclamation process. Additional species that might be acting similarly include killdeer and horned lark.
- ▶ Our suspicions continue to be supported that blue-winged warbler has increased its distribution and abundance in this region. Golden-winged warbler is now absent below 2000 feet in almost all blocks visited.
- ▶ Despite our optimism, Swainson's warbler was detected only in several blocks. We will be working to target this species specifically in 2013.

In 2013, we plan on continuing this work in the Southwest and Teays Valley regions, as well as targeting for specific species guilds. These include interior forest specialists (worm-eating, swainson's, Kentucky and cerulean warblers). Over 20 priority blocks with little to no data still remain in the region, and we will be working there as well. Stay tuned!



Atypical (for WV) Swainson's warbler habitat, Boone County



- Targeted blocks covered in 2012
- Other non-targeted priority blocks

2012 field season block coverage in Southwest/Teays Valley



Typical habitat, Dorothy-6 block in western Raleigh County. Mountaintop coal mines can be seen in the distance.

Modern breeding bird atlases often have two important components. The first is a broad-front generalized effort to document the *presence or absence* of species in a given atlas block. To do this, atlasers simply visit the block and cover as much ground and as many habitats as possible within established safe dates. Breeding codes and specifics for rare species are all that are required, and there are no daily time limits.

This contrasts somewhat with the second common component of breeding bird atlases: estimating the statewide *abundance* of species. This is incredibly important, as it enables us to detect and track population trends of many species over time that might otherwise be hidden. Some species, like the wood thrush or eastern wood pewee, still have a very broad distribution within their respective ranges. In WV, they can be found in almost all blocks with appropriate habitat. However, abundance surveys like the breeding bird survey (BBS) and those conducted as part of breeding bird atlases are clearly showing long-term and sustained population declines. These types of declines can be quite significant before they become apparent as a contraction in range or distribution.

Abundance surveys may enable us to detect species trends early, and give us more time to develop and implement recovery and conservation plans.

Methodology is very important with abundance point-count surveys. Most protocols require that atlasers group observations by time and distance and count individual birds only once. Habitat types are also entered. Once field work is complete, accuracy is increased by correcting data for observer bias and detection probabilities. Further statistical analysis will enable the production of maps that show predicted statewide abundance.

The map below shows the various methodologies we have used in conducting our abundance surveys. In most cases, time and distance increments that observers record vary slightly. At the conclusion of the atlas data collection period, a statistician will pool these data and derive an estimate of relative abundance for most breeding species. In some cases (shown in red), we will be revisiting blocks to acquire additional data to facilitate this process. Very rare, difficult to detect or nocturnal species are not often effectively counted on abundance surveys, and will not be represented in this analysis. Examples might include owls, whip-poor-wills and uncommon species that occur in only a few select blocks.

In 2012, we completed abundance point-count surveys in 108 blocks, many of them in difficult access areas. We have approximately 250 blocks yet to complete - a daunting challenge that we should nonetheless be able to meet given concerted effort and help from volunteers!

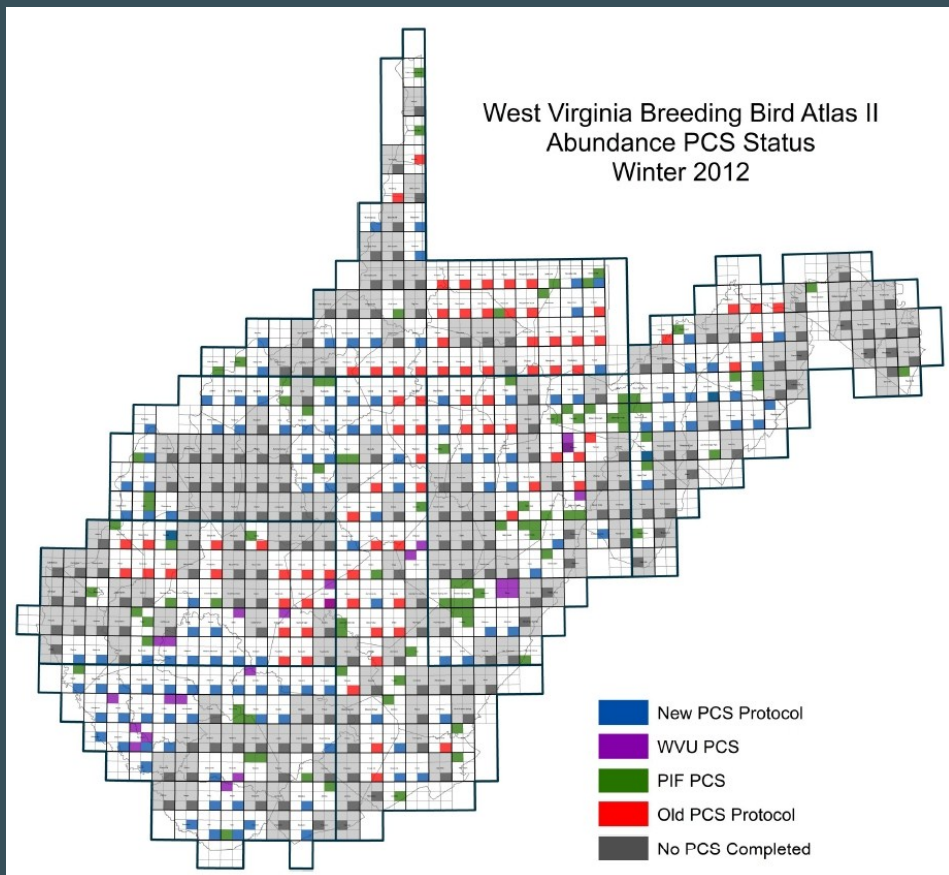
Volunteer! How PCS works...

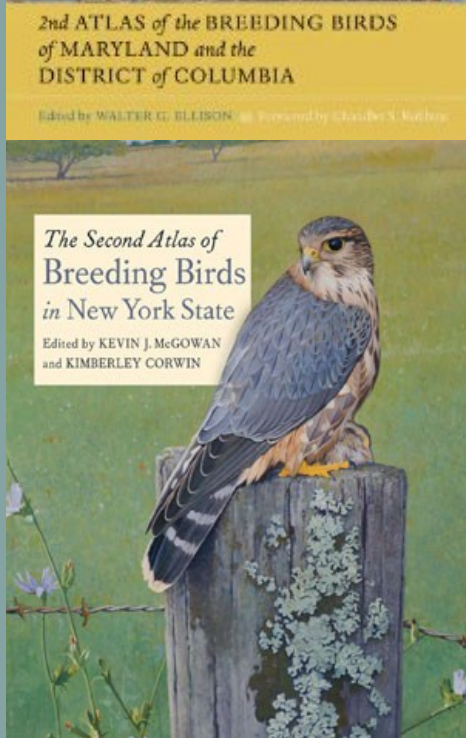
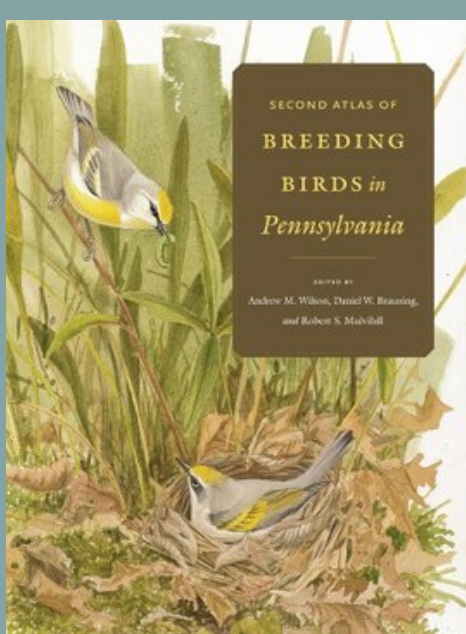
We are on track to complete our abundance point-count survey work by the end of the atlas period. However, to do this, we need the help of experienced birders willing to visit specific and sometimes-remote blocks.

Abundance PCS generally involves:

- ▶ **Identifying** at least 5 points within a given block that represent the diversity of available habitats
- ▶ **Visiting** each point once between May 25th and June 20th and before 9AM.
- ▶ **Counting** the numbers of each bird species observed
- ▶ **Describing** the habitat type in which each species is observed

Contact Donna Mitchell or visit our website to learn more!





Recently-published atlases in nearby states combine high production values with detailed analyses of both species distribution and abundance. We will be modeling our work on lessons learned from these successful efforts.

As we begin to approach the end of field work, our thoughts are turning to the next phase of this project - namely analyzing huge quantities of data and then turning our findings into a useful and easily accessible resource. Even though analysis itself can take well over a year, we are already in the process of putting together a book proposal with sample text, layouts and graphics/maps. In addition, we are beginning work on sections not-dependent on data analysis such as historical context for species, acquisition of photographs, and production of various map sets.

The book we hope to produce will have a number of components in addition to accounts of approximately 186 bird species. These components include detailed accounts of atlas history, organization and methodology as well as state geology, bioregions and climate. An overall summary of trends and change over time relative to the first WV atlas will be included as well. Specific distribution and abundance analyses will be nested within each species account. Appendices will include relative abundance tables, species totals per block, county species lists, species safe-dates, and works cited. Our overarching goal is to produce a work that will be highly useful to academics and professionals while at the same time helpful and interesting to nature lovers and bird enthusiasts.

Ornithological atlases, first originating in Europe in the mid-20th century, have now been completed in most states. Some states have completed a single atlas, while others have already published and printed their second. All have certain common goals that are often modified by unique circumstances and challenges. Many of these atlases, including soon to be/recently published second atlases in Pennsylvania and Ohio, follow very similar protocols and methodology that facilitate comparisons across state borders. These similarities include standardized grid-based block survey, breeding evidence probability codes, breeding safe-date system, and similar abundance point-count methodologies.

Significant differences between atlases are often limited to species-specific concerns, survey access challenges (mountaintop mining sites, for example), and quantifying and correcting for variance in surveyor effort. Nonetheless, the proposed 2nd West Virginia atlas book would strongly resemble recently published atlases in other states in numerous respects.

Atlases are of great interest to a number of different audiences, ranging from agencies and academia to birders interested in learning more about species distribution in their state. All recently-published state bird atlases are peer-reviewed scientific documents that serve to inform and direct research and ongoing species monitoring in a wide variety of contexts. Diverse examples might include updated range maps in field guides, research to better understand species trends based on observed gains or losses, and interstate coordination to target species management based on new understanding.

We are currently entering the 5th field season out of 6, and anticipate concluding all acquisition of data in the field by winter 2014. At that point, all work will shift towards data acquisition from external sources, spatial and statistical data analysis and the production of a draft that will include text, maps, and supporting images and graphics. Our goal is to have an initial draft completed no later than winter 2017, with winter 2016 as our target. We anticipate that the book would be approximately 450 - 550 pages in a roughly 8" by 11" size. The book would be printed in full color, and include many photographs, maps and other graphics.

We are seeking "home-grown" photos for the book

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In an effort to make the book as 'home-grown' as possible, we are actively seeking out high-quality photographs for publication in the book!

These pictures should ideally be:

- ▶ High-quality and print resolution - 300ppi or better
- ▶ Taken during the breeding season, at a known location
- ▶ Taken in the species' breeding habitat
- ▶ Taken during the atlas time period, 2009 - 2014 (we can be somewhat flexible with this)

Your donated photograph, if published, will be credited to you and will go a long way towards making this book unique. While we will likely be unable to obtain suitable images of all 180+ breeding species, we hope that we might also supplement what we do obtain with artwork.

If this is something you're interested in, please contact Rich Bailey to discuss further. We anticipate that we will have approximately 3 - 4 years to amass as many images, drawings and illustrations as we can.



Common Merganser, Elk River
Lisa Nelson, Beverly, WV

Reminders:

As always, there are certain things to keep in mind going into a new season of atlasing:

- ▶ **Please note safe dates for all bird species.** There are quite a few early breeders that we tend to miss!
- ▶ **Not all blocks are created equal!** We strongly encourage you to focus your atlasing on priority blocks
- ▶ **Update your profiles and contact information** if necessary via the website
- ▶ **Don't forget to log your effort!** This is very important to support our ability to finance projects like these.
- ▶ **You don't need to "own" a block** to submit observations. We need as much data as we can get!

WVBBA2 Staff

Atlas Project Director:

Richard Bailey, Ornithologist
Richard.S.Bailey@wv.gov

Abundance Count coordinator
Central and Southeast coordinator
Donna Mitchell, Diversity Biologist
Donna.M.Mitchell@wv.gov

Mountain coordinator
Rob Tallman, Manager - Cheat WMA
Robert.E.Tallman@wv.gov

Eastern Panhandle coordinator
Kieran O'Malley, Diversity Biologist
Kieran.M.O'Malley@wv.gov

Northern Panhandle coordinator

Sue Olcott, Diversity Biologist
Susan.P.Olcott@wv.gov

Southwest coordinator

Jeff Hajenga, Diversity Biologist
Jeff.J.Hajenga@wv.gov

Teays Valley coordinator

Michael Welch, Zoologist
Michael.J.Welch@wv.gov

Little Kanawha coordinator

Tom Fox, Brooks Bird Club
trfox@wirefire.com

For more information...

Atlas information: martes.dnr.state.wv.us/breedingbirdatlas

Data entry and exploration: bird.atlasing.org/Atlas/WV/



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