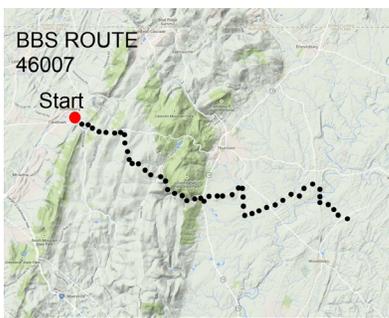


## Patuxent Wildlife Research Center

# The North American Breeding Bird Survey: Refining Scale to Provide New Insights



**The Challenge:** Since 1966, the North American Breeding Bird Survey (BBS) has filled a vital role in identifying at-risk bird species for Federal, State, and private entities. The BBS is a scientifically rigorous population count performed by a highly skilled, largely volunteer work force of nearly 2,500 observers. Every year these observers visit most of the survey's 4,500 routes, which consist of 50 roadside stops located approximately ½ mile apart, where they count all birds detected within a timed period. BBS count data have traditionally been summed across all 50 stops when used in analyses of population trends so, naturally, only the summarized data had been stored in the BBS database. This changed in 1997 when the BBS began saving the stop-by-stop data into the database just as observers have always recorded it on their data sheets in the field.



**The Science:** With the advent of modern satellite data, such as the National Land Cover Database, the value of having BBS count data available at the stop level has been dramatically reframed. New tools such as these have paved the way to allowing changes in birdlife at individual stops to be directly associated with changes in local habitat characteristics, which would permit a far greater understanding of species biology and management. But the lack of digitized 50-stop data from the first 31 years of the BBS is a major impediment to realizing such advancement. Fortunately though, the complete 50-stop records, as recorded by observers, are still in existence in a storage locker in their original, vulnerable, paper format.



**The Future:** The BBS office has embarked on an ambitious effort to recover the data in its historical paper data archive, both to ensure the long-term safety of the records and to extract the 50-stop data for incorporation into the BBS database. To date the contents of 112 boxes of historic data have been cataloged, digitally imaged, and electronically indexed, providing a flexible and compact BBS data archive. Contract companies then keyed the data from the images, logging over 120 million keystrokes in the process which yielded over 22 million stop-level bird records – nearly 1 ½ times as much stop-level data as was previously available! The final phase of the project, oriented at quality assurance and reconciliation of the newly recovered 50-stop data, is slated to be completed by the end of 2017.