

## **Patuxent Wildlife Research Center**

## **Breeding Bird Atlas Explorer**



BBA Explorer map showing the status of atlases in North America, including metadata for those not in the repository yet.



Red-headed Woodpecker breeding distribution map based on data from about 2 dozen of the state atlas datasets in BBA Explorer.



Red-headed Woodpecker. Photo by Mikey Lutmerding

- **The Challenge:** A Breeding Bird Atlas (BBA) is a widespread survey method that provides distribution maps for all bird species that nest in a specific state or province. Hundreds of participants fan out over several seasons to their assigned blocks on a systematic survey grid; they search for breeding evidence such as a male/female pair of a species on a branch ("possibly breeding"), or an adult feeding its young ("confirmed breeding"). Results are analyzed and mapped to provide a snapshot of the breeding distribution of each species. These largely volunteer projects rarely have the resources to produce data products or collaborate beyond their borders; a paper publication has been the traditional end product.
- **The Science:** The BBA Explorer is the first, and only, online repository for archiving BBA data collected across the US and for producing maps from the merged data. The website and database support data from published atlases, and also serves as a management tool for implementing these large-scale surveys: the shared data management system has allowed for cost-effective project implementation for agencies in ten states. Currently the database houses 35 published and ongoing atlas projects. Data and maps from BBA Explorer have been used in the preparation of two publications to date.
- **The Future:** Both previously published and currently collected data, once they pass standard reviews, may be used by the public via the BBA Explorer website. We are now investigating ways to serve data via real-time connections for partners, to provide greater access to the database and rich mapping resources. We are also supporting several atlas projects in developing more robust sampling methods, and in searching for ways to make the best use of data on bird distributions changing over time.