

GET INVOLVED!

You can become a BPP
participant from your own
home.



All you need is a computer
and internet access!

Go to: www.pwrc.usgs.gov/bpp/



North American Bird Phenology Program

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North American Bird Phenology Program



*Understanding the scale of
global climate change and how it
is affecting bird populations
across North America*



Phenology is the study of recurring plant and animal life cycle stages, or phenophases, such as leafing and flowering of plants, maturation of agricultural crops, emergence of insects, and migration of birds. Many of these events are sensitive to climatic variation and change, and are simple to observe and record.

The **North American Bird Phenology Program** houses a unique and largely forgotten collection of several million migration cards that illuminate migration patterns and population status of birds in North America. These handwritten cards contain almost all of what was known of bird distribution and natural history from the 1880s to 1970. Most of the records are the result of a network of 3,000 observers who recorded migration arrival and departure dates.

Today, volunteers worldwide are transcribing these records and placing them into a database for analysis. This information will be used, along with recently collected arrival times of migrant birds (from individual organizations and bird clubs), in conjunction with historical weather data to show how migration is affected by climate change and to track changes in migration arrival dates over 120 years. The data has strong potential for long-term geographic and temporal analysis of all common migratory species in North America.



Step 1: Volunteers sort and scan all of the migration cards in the BPP office



Step 2: Each card can then be viewed and transcribed online by volunteers on the BPP website: www.pwrc.usgs.gov/bpp/

Each card is transcribed at least twice for quality assurance.



Picture taken by Abe Borker

Step 3: The data, once verified, is sent into the BPP database. This will be a publicly accessible database shared through the USA-National Phenology Network website: <http://www.usanpn.org/>

| | | | | | | |
|---|---------------|-----------|---------------|---------------|----------------|-----------|
| Name of Bird <i>Black-throated Blue Warbler</i> | | | | | | |
| Locality <i>Aicksburg, Michigan</i> | | | | | | |
| Observer <i>F. W. Raff</i> 1933 | | | | | | |
| First seen | Number seen | Nest seen | Became common | Last seen | Course of life | Remarks |
| <i>May 12</i> | <i>May 13</i> | | <i>May 14</i> | <i>May 17</i> | <i>com</i> | <i>No</i> |

One of the bird migration cards

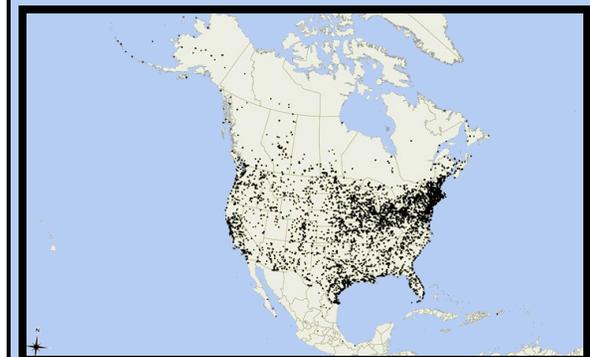
The BPP provides access to one of the largest historical, climate change-relevant datasets, which is of particular value to researchers, wildlife managers, hunters, and recreational birders.

Get Involved with the BPP:

The BPP is currently in need for both in-office volunteers and online transcribers.

To become an office volunteer please contact the BPP office to set up an orientation date. Volunteer hours are very flexible, with evening and weekend hours available.

To become an online volunteer, visit the registration page at <https://www.pwrc.usgs.gov/bpp/BecomeAParticipant.cfm>. After a quick email confirmation and 15 minute training video you can begin transcribing migration cards.



Mapped Observations from cards transcribed online (84,742)