(version 2019-07-25)

File_and_Field_Definitions-NABBS_Dataset_1966-2018_v2018_0.pdf

I. Introduction and Resources:

A. Description of contents

This document describes the data files of the North American Breeding Bird Survey Dataset 1966 - 2018, version 2018.0, as well as all associated files and keys available at ftp://ftpext.usgs.gov/pub/er/md/laurel/BBS/DataFiles/. It replaces version 2017.0 and includes data from 1966 - 2018.

B. Citation

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C. Previous versions

Archived data that were posted on this ftp site in previous years can be found at ftp://ftpext.usgs.gov/pub/er/md/laurel/BBS/Archivefiles/

D. Further information

For general information about the BBS, data use issues, terms of use, data access constraints and the data liability disclaimer, see the file MetaData-NABBS_Dataset_1966-2018_v2018_0.xml.

For information about updates made in the current version, see the whatsnew.txt file.

E. Contacts

If you have any questions or notice any problems with the data, please let us know.

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II. List and Description of Files

All the files included in the 2018 BBS data release are identified and described below. The data are stored in self-extracting zip files that contain comma separated values (.csv) text files. The first line of each data file contains the column headers. Metadata files, keys, and other descriptive files are presented in .txt, .pdf, or .xml format.

A. Files in the main directory:

General information, metadata:

MetaData-NABBS_Dataset_1966-2018_v2018_0.xml – Describes overview, purpose, general methodology, data access constraints and liability.

Completeness_Report-NABBS_Dataset_1966-2018_v2018_0.pdf – Describes the scope and limitations of the dataset, with references. [This is the completeness report information referenced in the file *MetaData-NABBS_Dataset_1966-2018_v2018_0.xml,* extracted to this file to present the information in a more readable format].

File_and_Field_Definitions-NABBS_Dataset_1966-2018_v2018_0.pdf – Describes the all the files in this data release, as well as the information (data fields) in each file.

whatsnew.txt – Describes the changes and additions made in this version of the data.

pkzipc.exe – An executable file to extract the csv files from the zip folders. (This may not be required).

Lookup Tables (keys):

These files include explanatory information and keys to the codes used in some tables (e.g., codes used for wind speed, strata names, species identification codes, etc)

BBSStrata.txt – List of BBS Strata names and identification numbers.

BCR.txt – List of Bird Conservation Region names and identification numbers.

RegionCodes.txt – List of Country and State/Province/Territory names and identification numbers.

RunProtocolID.txt – Description of survey protocols used on BBS routes.

RunType.pdf – Description of RunType and the method for calculating it.

SpeciesList.txt – List of the bird species and taxa found in this data set.

weathercodes.txt – Description of wind speed and sky condition codes.

Data files:

routes.zip – A compressed version of the data file *routes.csv* containing a list of routes with location name, latitude and longitude of the start point, stratum, BCR, and an indication of whether or not each route is currently active. There is one record in the *routes.csv* file for each BBS route.

Weather.zip – A compressed version of the data file *weather.csv* containing the sample history of each route (i.e. the unique data associated with each run of a route), including date and time sampled, who collected the data (observer ID), weather conditions, and run type information. There is one record in the *weather.csv* file for every run of a route.

B. Data files in the States directory:

Compressed versions of 62 data files *[region name].csv,* where *[region name]* refers to the regions described below and in the look-up table *RegionCodes.txt*. Each of these regional files (State, Province, Territory), has the same data fields. The files contain all breeding bird count data from 1966-present, summarized at 10-stop intervals and including 50-stop totals. In these files there is one record for every species detected on each run of a route. The field "RouteDataID" uniquely identifies each run of a route.

File Name	Description
Alabama.zip	Alabama
Alaska.zip	Alaska
Alberta.zip	Alberta
Arizona.zip	Arizona
Arkansa.zip	Arkansas
BritCol.zip	British Columbia
Califor.zip	California
Colorad.zip	Colorado
Connect.zip	Connecticut
Delawar.zip	Delaware
Florida.zip	Florida
Georgia.zip	Georgia
Idaho.zip	Idaho
Illinoi.zip	Illinois
Indiana.zip	Indiana
Iowa.zip	Iowa
Kansas.zip	Kansas
Kentuck.zip	Kentucky

Louisia.zip	Louisiana
Maine.zip	Maine
Manitob.zip	Manitoba
Marylan.zip	Maryland
Massach.zip	Massachusetts
Michiga.zip	Michigan
Minneso.zip	Minnesota
Mississ.zip	Mississippi
Missour.zip	Missouri
Montana.zip	Montana
Nebrask.zip	Nebraska
NBrunsw.zip	New Brunswick
Newfoun.zip	Newfoundland
NHampsh.zip	New Hampshire
NJersey.zip	New Jersey
NMexico.zip	New Mexico
NYork.zip	New York
Nevada.zip	Nevada
NCaroli.zip	North Carolina
NDakota.zip	North Dakota
NWTerri.zip	Northwest Territories
NovaSco.zip	Nova Scotia
Nunavut.zip	Nunavut
Ohio.zip	Ohio
Oklahom.zip	Oklahoma
Ontario.zip	Ontario
Oregon.zip	Oregon
PEI.zip	Prince Edward Island
Pennsyl.zip	Pennsylvania
Quebec.zip	Quebec
RhodeIs.zip	Rhode Island
Saskatc.zip	Saskatchewan
SCaroli.zip	South Carolina
SDakota.zip	South Dakota

Tenness.zip	Tennessee
Texas.zip	Texas
Utah.zip	Utah
Vermont.zip	Vermont
Virgini.zip	Virginia
W_Virgi.zip	West Virginia
Washing.zip	Washington
Wiscons.zip	Wisconsin
Wyoming.zip	Wyoming
Yukon.zip	Yukon

C. Data files in the 50-StopData directory:

Sub-directory: 1997ToPresent_SurveyWide

Compressed versions of the data files *Fifty[x].csv,* where *[x]* represents one of the ten multi-region groupings described below. The files contain breeding bird count data 1997-present, with count data presented at the level of the individual stop (50-stops per route). A limited amount of pre-1997 data are also included. In these files there is one record for every breeding bird species detected on each run of a route. The field "RouteDataID" uniquely identifies each run of a route.

File Name	Description
Fifty1.zip	Alabama, Alaska, Alberta, Arizona, and Arkansas
Fifty2.zip	British Columbia, California, Colorado, Connecticut, and Delaware
Fifty3.zip	Florida, Georgia, Idaho, Illinois, Indiana, and Iowa
Fifty4.zip	Kansas, Kentucky, Louisiana, Northwest Territories, Maine, Manitoba, Maryland, and Massachusetts
Fifty5.zip	Michigan, Minnesota, Mississippi, Missouri, Montana, Nebraska, Nevada, New Brunswick and Newfoundland
Fifty6.zip	New Hampshire, New Jersey, New Mexico, New York, and North Carolina
Fifty7.zip	North Dakota, Nunavut, Nova Scotia, Ohio, Oklahoma, and Ontario
Fifty8.zip	Oregon, Pennsylvania, Prince Edward Island, Quebec, Rhode Island, Saskatchewan, and South Carolina
Fifty9.zip	South Dakota, Tennessee, Texas, Utah, and Vermont
Fifty10.zip	Virginia, Washington, West Virginia, Wisconsin, Wyoming, and Yukon Territories

D. Data files in the MigrantNonBreeder directory:

Bird count data for species identified as migrants, vagrants, and/or nonbreeders. The data are presented in two formats: summarized at ten-stop intervals, and at the level of the individual stop. Systematic collection of these data began in 1999, although there are a limited amount of data from earlier years. *Note:* The 10-stop summary table includes some records not present in the 50-stop version (mostly records from before 1997) because the data for these additional records were not available at the level of the individual stop.

MigrantSummary.zip – A compressed version of the data file *MigrantSummary.csv* containing all incidental migrant, vagrant, and nonbreeding bird records, summarized at 10-stop summary intervals and including 50-stop totals. There is one row in the MigrantSummary.csv file for every migrant/vagrant/nonbreeding species detected on each run of a route.

Migrants.zip – A compressed version of data file *Migrants.csv* containing incidental migrant, vagrant, and nonbreeding bird records in 50-stop format. There is one row in the MigrantSummary.csv file for every migrant/vagrant/nonbreeding species detected on each run of a route.

E. Data files in the VehicleData directory:

VehicleData.zip – A compressed version of the data file *VehicleData.csv* containing counts of vehicles passing survey points during each 3-min count, and unrelated excessive noise data, with data presented at the level of the individual stop (50-stops per route). The first year that vehicle count data were systematically collected was 1997, although the "RecordedCar" field (indicating that vehicles were recorded consistently along the entire route) was not in use until 1998. Likewise, excessive noise data were not systematically collected until 1998.

III. Definition of the Fields in Each Data File

All fields in each data file in the BBS data release are identified and described below.

A. Route details. Data unique to each BBS route; one record for each BBS route.

File: *routes.zip*

Field Name	Field Description
CountryNum	Three-digit identification code for country. See the file *RegionCodes.txt* for the key. (Leading zeros may not appear in the spreadsheet).
StateNum	Two-digit numerical code that identifies the state, province or territory where the route is located. See the file *RegionCodes.txt* for the key. (Leading zeros may not appear in the spreadsheet).
Route	Three-digit code that identifies the route; unique within states. (Leading zeros may not appear in the spreadsheet).
RouteName	Name of the route.
Active	A flag that shows if the route is currently active, or has been discontinued (1 = active, 0 = inactive). A route can be active and not sampled in a given year.
Latitude	Latitude of the route start point (in decimal degrees, NAD 83).
Longitude	Longitude of the route start point (in decimal degrees, NAD 83).
Stratum	BBS physiographic stratum code for that route. See *BBSStrata.txt* for the key.
BCR	Bird Conservation Region where the route is located. See *BCR.txt* for the key.
RouteTypeID	Indicates route substrate. 1 = Roadside, 2 = Water, 3 = Off-road.
RouteTypeDetailID	Indicates route length and selection criteria (i.e., random vs. non-random). 1 = Random 50 Stops, 2 = Not Random 50 Stops, 3 = 3 Not Random < 50 stops.

B. Route Runs. Data unique to each run of a BBS route; one record for each run of a route.

File: *Weather.zip*

Field Name	Field Description
RouteDataID	Data identification number; unique for each combination of CountryNum, StateNum, Route, RPID, and Year
CountryNum	Three-digit identification code for country. See the file *RegionCodes.txt* for the key. (Leading zeros may not appear in the spreadsheet).
StateNum	Two-digit numerical code that identifies the state, province or territory where the route is located. See the file *RegionCodes.txt* for the key. (Leading zeros may not appear in the spreadsheet).
Route	Three-digit code that identifies the route; unique within states. (Leading zeros may not appear in the spreadsheet).
RPID	Three-digit run protocol ID number. See the file *RunProtocolID.txt* for the key.
Year	Four-digit year of the survey.
Month	Month surveyed (1-12).
Day	Day of the month surveyed (1-31).
ObsN	Observer Number of the person who conducted the run. [Each observer is assigned a unique observer number.]
TotalSpp	Total number of species recorded during the run.
StartTemp	Temperature at the start of the run.
EndTemp	Temperature at the end of the run.
TempScale	Temperate Scale (C=Celsius, F=Fahrenheit)
StartWind	Wind speed status at the start of the run. Beaufort Scale: see the file *weathercodes.txt* for the key.
EndWind	Wind speed status at the end of the run. Beaufort Scale: see the file *weathercodes.txt* for the key.
StartSky	Sky conditions at the start of the run. National Weather Service Code: see the file *weathercodes.txt* for the key.
EndSky	Sky conditions at the end of the run. National Weather Service Code: see file *weathercodes.txt* for the key.
StartTime	Time the run was started (recorded in 24-hour local time).
EndTime	Time the run was ended (recorded in 24-hour local time).
Assistant	If someone assisted the observer by recording the data, then this column is 1, otherwise it is 0.

QualityCurrentID	Indicates whether the route sampling event (i.e., the run) took place under suitable weather conditions and within suitable time, date, and route completion criteria. If the data meet all these criteria, then QualityCurrentID is 1, otherwise it is 0. See the file *RunType.pdf* for more information.
RunType	The RunType code helps to quickly determine which data meet the BBS program's data criteria. See the file *RunType.pdf* for more information.

C. Avian Count Data summarized at 10-stop intervals. Species-level data. There is one record for every species detected on each run of a route. Files for breeding birds and migrant, non-breeding and vagrant birds include the same data fields.

1. Breeding Bird Data – *1966-present*

Files: *States* / *Alabama.zip, … Yukon.zip* (A total of 62 regional files, listed in section II B above)

2. Migrant, Non-Breeding and Vagrant Bird Data – *primarily 1999-present*

File: *MigrantNonBreeder* / *MigrantSummary.zip*

Field Name	Field Description
RouteDataID	Data identification number; unique for each unique combination of CountryNum StateNum, Route, RPID, and Year.
CountryNum	Three-digit numerical code for country. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
StateNum	Two-digit numerical code that identifies the state, province or territory where the route is located. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
Route	Three-digit code that identifies the route; unique within states. (Leading zeros may not appear in the spreadsheet).
RPID	Three-digit run protocol identification number. See *RunProtocolID.txt* for key.
Year	Four-digit year of the survey.
AOU	Five-digit species identification number. (Leading zeros may not appear in the spreadsheet) See the file *SpeciesList.txt* for the key.
Count10	Total individuals of the species recorded on stops 1-10.
Count20	Total individuals of the species recorded on stops 11-20.
Count30	Total individuals of the species recorded on stops 21-30.
Count40	Total individuals of the species recorded on stops 31-40.
Count50	Total individuals of the species recorded on stops 41-50.
StopTotal	Total number of stops (out of 50) on which the species was recorded.
SpeciesTotal	Total individuals of the species recorded on that run of the route (sum of stops).

D. Avian Count Data at Individual Stops (50-stops per route). Species-level data. There is one record for every species detected on each run of a route. Files for breeding birds and migrant, non-breeding and vagrant birds include the same data fields.

1. Breeding Bird Data – *primarily 1997-present*

Files: *50-StopData / 1997ToPresent_SurveyWide / Fifty1.zip, … Fifty10.zip* (10 files, listed in II C above)

2. Migrant, Non-Breeding and Vagrant Bird Data – *primarily 1999-present*

File: *MigrantNonBreeder* / *Migrants.zip*

Field Name	Field Description
RouteDataID	Data identification number; unique for each unique combination of CountryNum StateNum, Route, RPID, and Year.
CountryNum	Three-digit numerical code for country. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
StateNum	Two-digit numerical code that identifies the state, province or territory where the route is located. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
Route	Three-digit code that identifies the route; unique within states. (Leading zeros may not appear in the spreadsheet).
RPID	Three-digit run protocol identification number. See *RunProtocolID.txt* for key.
Year	Four-digit year of the survey.
AOU	Five-digit species identification number. (Leading zeros may not appear in the spreadsheet) See the file *SpeciesList.txt* for the key.
Stop1	Total individuals of the species recorded at Stop 1.
Stop2	Total individuals of the species recorded at Stop 2.
Stop3	Total individuals of the species recorded at Stop 3.
. . .	*(similar fields for sequential stops 4-48)*
Stop49	Total individuals of the species recorded at Stop 49.
Stop50	Total individuals of the species recorded at Stop 50.

E. Vehicle & Excessive Noise Data at Individual Stops (50 stops per route) – *primarily 1998-present*

File: *VehicleData /* *VehicleData.zip*

Field Name	Field Description
RouteDataID	Data identification number; unique for each unique combination of CountryNum StateNum, Route, RPID, and Year.
CountryNum	Three-digit numerical code for country. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
StateNum	Two-digit numerical code that identifies the state, province or territory where the route is located. See the file *RegionCodes.txt* file for the key. (Leading zeros may not appear in the spreadsheet).
Route	Three-digit code that identifies the route; unique within states. (Leading zeros may not appear in the spreadsheet).
RPID	Three-digit run protocol identification number. See *RunProtocolID.txt* for key.
Year	Four-digit year of the survey.
RecordedCar	Flag that indicates whether the observer consistently recorded the number of passing vehicles while sampling the route: 1 = yes, 0 = no, NULL = not indicated.
Car1	Number of vehicles reported at Stop 1
Car2	Number of vehicles reported at Stop 2
Car3	Number of vehicles reported at Stop 3
. . .	*(similar fields for sequential stops 4-47)*
Car48	Number of vehicles reported at Stop 48
Car49	Number of vehicles reported at Stop 49
Car50	Number of vehicles reported at Stop 50
Noise1	Excessive noise reported at Stop 1: 1 = yes, 0 = no
Noise2	Excessive noise reported at Stop 2: 1 = yes, 0 = no
Noise3	Excessive noise reported at Stop 3: 1 = yes, 0 = no
. . .	*(similar fields for sequential stops 4-47)*
Noise48	Excessive noise reported at Stop 48: 1 = yes, 0 = no
Noise49	Excessive noise reported at Stop 49: 1 = yes, 0 = no
Noise50	Excessive noise reported at Stop 50: 1 = yes, 0 = no

IV. Definition of the Fields in Look-up Tables

Fields in each Look-up table in the 2018 BBS data release are identified and described below.

BBSStrata.txt

Field Name	Field Description
Stratum	Stratum ID number
StratumName	Stratum name (English)
StratumNameFrench	Stratum name (French)
StratumNameSpanish	Stratum name (Spanish)

BCR.txt

Field Name	Field Description
BCR	BCR ID number
BCRName	BCR name (English)
BCRNameFrench	BCR name (French)
BCRNameSpanish	BCR name (Spanish)

RegionCodes.txt

Field Name	Field Description
CountryNum	Country ID number
CountryName	Country name
StateNum	Region ID number (State, Province or Territory)
State/Prov/TerrName	Region name (State, Province or Territory)

RunProtocolID.txt

Field Name	Field Description
RPID	RunProtocolID (Run Protocol ID number)
RunProtocol_English	Run Protocol name (English)
RunProtocolDesc	Run Protocol description

SpeciesList.txt

Field Name	Field Description
Seq	Sequence: Numbering system to sort taxa by phylogenetic order
AOU	AOU Code: A unique 5-number ID code

English_Common_Name	Common English Name
French_Common_Name	Common French Name
Spanish_Common_Name	Common Spanish Name
ORDER	Taxonomic Order
Family	Taxonomic Family
Genus	Taxonomic Genus
Species	Taxonomic Species

weathercodes.txt

Field Name	Field Description
Wind Speed Codes:	
WindID	Wind speed ID codes to use for StartWind and EndWind fields
Description	Wind Description (English)
DescriptionFrench	Wind Description (French)
DescriptionSpanish	Wind Description (Spanish)
Sky Condition Codes:	
SkyID	Sky condition ID codes to use for StartSky and EndSky fields
Description	Sky Description (English)
DescriptionFrench	Sky Description (French)
DescriptionSpanish	Sky Description (Spanish)