USER'S GUIDE

A complete description of the data and supplemental files included in:

Data Supporting an Examination of Estimating the Potential Capacity of Ecosystems to Support biodiversity in the Prediction of Realized Avian Diversity

January 2021

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Introduction

This guide describes the data sets used and created, including their variables and descriptions, in support of the Data supporting an examination of estimating the potential capacity of ecosystems to support biodiversity in the prediction of realized avian diversity study.

References

Breeding Bird Survey Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html)

North American Breeding Bird Survey. 2020. U.S. Geological Survey. https://www.usgs.gov/centers/pwrc/science/north-american-breeding-bird-survey.

Sauer, John R.; Link, William A.; Fallon, Jane E.; Pardieck, Keith L.; Ziolkowski, David J. Jr. 2013. The North American Breeding Bird Survey 1966-2011: Summary Analysis and Species Accounts. North American Fauna 79: 1–32. https://doi.org/10.3996/nafa.79.0001

GIS data

Within the data publication these ESRI ArcGIS shapefiles files can be found under: \Data\SHPfiles\...

Metadata documents for each SHP file are available (*.shp.xml) and contain details on the data available within each file.

BBSrte_MBRrba_BCR_MBRrbaLocations.shp: ESRI ArcGIS shapefile (and associated files) containing Breeding Bird Survey (BBS) route centroids based on the rectangle by area minimum bounding geometry of the route path.

#	Variable	Description
1	FID	Unique identifier for each feature
2	Shape	Shape of the geographic feature
3	FID_BBSrte	Unique feature identifier for each BBS route
4	Rteno	BBS route number
5	ORIG_FID	Original feature identifier
6	FID_BCR_NA	Feature identifier for each Bird Conservation Region (BCR)
7	AREA	Area (m ²) of the polygon in which the BBS route centroid occurs
8	PERIMETER	Perimeter length (m) of the BCR polygon in which the BBS route occurs
9	BCR_	Internal ArcGIS identifier
10	BRC_ID	Internal ArcGIS identifier
11	BCR	BCR code
12	BCR_NAME	BCR name
13	KM2	Area (km²) of polygon
14	BCR_AREA	Area (m ²) of the BCR
15	DISSOLVE_V	Variable used in running the ArcGIS Dissolve tool

BBSrte_MBRrba_BCR_StartLocations.shp: ESRI ArcGIS shapefile containing Breeding Bird Survey (BBS) route start locations.

#	Variable	Description
1	FID	Unique identifier for each feature
2	Shape	Shape of the geographic feature
3	FID_start_	Feature identifier for the BBS start location
4	rteno	BBS route number
5	Latitude	Latitude, in decimal-degrees, of the BBS route start location
6	Longitude	Longitude, in decimal-degrees, of the BBS route start location
7	FID_BCR_NA	Internal ArcGIS identifier
8	AREA	Area (m ²) of the polygon in which the BBS route occurs
9	PERIMETER	Perimeter length (m) of the BCR polygon in which the BBS route start location occurs
10	BCR_	Internal ArcGIS identifier
11	BCR_ID	Internal ArcGIS identifier
12	BCR	BCR code
13	BCR_NAME	BCR name
14	KM2	Area (km²) of polygon
15	BCR_AREA	Area (m ²) of the BCR
16	DISSOLVE_V	Variable used in running the ArcGIS Dissolve tool

BCR_NA.shp: ESRI ArcGIS shapefile containing Bird Conservation Regions (BCR) for North America.

#	Variable	Description
1	FID	Unique identifier for each feature
2	Shape	Shape of the geographic feature
3	AREA	Area (m ²) of the BCR
4	PERIMETER	Area (m) of the BCR
5	BRC_	Internal ArcGIS identifier
6	BCR_ID	Internal ArcGIS identifier
7	BCR	BCR code
8	BCR_NAME	BCR name
9	KM2	Area (km ²) of polygon
10	BCR_AREA	Area (km ²) of BCR
11	DISSOLVE_V	Variable used in running the ArcGIS Dissolve tool

Tabular data

Within the data publication these comma-delimited ASCII text files can be found under: \Data\...

spp_abundance.csv: Comma-delimited ASCII text file containing a count of all individuals detected on each BBS route in each year, 2010-2014.

- Missing data are represented with a "".
- Total includes unidentified or hybrid species.
- Exotic only includes species identified as exotic.
- Native excludes species identified as exotic.
- Passerine includes species identified as Order Passeriformes by Breeding Bird Survey master species list.
- Forest-woodland species based on Breeding Bird Survey Species Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).

#	Variable	Description
1	rteno	Breeding Bird Survey (BBS) route <i>xxyyy</i> , where <i>xx</i> = BBS state code, <i>yyy</i> = BBS route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	Total_2010	Total number of individuals observed on rteno, 2010
4	Total_2011	Total number of individuals observed on rteno, 2011
5	Total_2012	Total number of individuals observed on rteno, 2012
6	Total_2013	Total number of individuals observed on rteno, 2013
7	Total_2014	Total number of individuals observed on rteno, 2014
8	Exotic_2010	Total number of exotic individuals observed on rteno, 2010
9	Exotic_2011	Total number of exotic individuals observed on rteno, 2011
10	Exotic_2012	Total number of exotic individuals observed on rteno, 2012
11	Exotic_2013	Total number of exotic individuals observed on rteno, 2013
12	Exotic_2014	Total number of exotic individuals observed on rteno, 2014
13	Native_2010	Total number of native individuals observed on rteno, 2010
14	Native_2011	Total number of native individuals observed on rteno, 2011
15	Native_2012	Total number of native individuals observed on rteno, 2012
16	Native_2013	Total number of native individuals observed on rteno, 2013
17	Native_2014	Total number of native individuals observed on rteno, 2014
18	Passerine_2010	Total number of passerine individuals observed on rteno, 2010
19	Passerine_2011	Total number of passerine individuals observed on rteno, 2011
20	Passerine_2012	Total number of passerine individuals observed on rteno, 2012
21	Passerine_2013	Total number of passerine individuals observed on rteno, 2013
22	Passerine_2014	Total number of passerine individuals observed on rteno, 2014
23	NativePasserine_2010	Total number of native passerine individuals observed on rteno, 2010
24	NativePasserine_2011	Total number of native passerine individuals observed on rteno, 2011
25	NativePasserine_2012	Total number of native passerine individuals observed on rteno, 2012
26	NativePasserine_2013	Total number of native passerine individuals observed on rteno, 2013
27	NativePasserine_2014	Total number of native passerine individuals observed on rteno, 2014
28	ExoticPasserine_2010	Total number of exotic passerine individuals observed on rteno, 2010
29	ExoticPasserine_2011	Total number of exotic passerine individuals observed on rteno, 2011
30	ExoticPasserine_2012	Total number of exotic passerine individuals observed on rteno, 2012
31	ExoticPasserine_2013	Total number of exotic passerine individuals observed on rteno, 2013
32	ExoticPasserine_2014	Total number of exotic passerine individuals observed on rteno, 2014

33	ForestWoodland2010	Total number of forest-woodland individuals observed on rteno, 2010
		, and the second
34	ForestWoodland_2011	Total number of forest-woodland individuals observed on rteno, 2011
35	ForestWoodland_2012	Total number of forest-woodland individuals observed on rteno, 2012
36	ForestWoodland_2013	Total number of forest-woodland individuals observed on rteno, 2013
37	ForestWoodland_2014	Total number of forest-woodland individuals observed on rteno, 2014
38	PasserineFW_2010	Total number of forest-woodland passerine individuals observed on rteno, 2010
39	PasserineFW_2011	Total number of forest-woodland passerine individuals observed on rteno, 2011
40	PasserineFW_2012	Total number of forest-woodland passerine individuals observed on rteno, 2012
41	PasserineFW_2013	Total number of forest-woodland passerine individuals observed on rteno, 2013
42	PasserineFW_2014	Total number of forest-woodland passerine individuals observed on rteno, 2014
43	Grassland_2010	Total number of grassland passerine individuals observed on rteno, 2010
44	Grassland_2011	Total number of grassland passerine individuals observed on rteno, 2011
45	Grassland_2012	Total number of grassland passerine individuals observed on rteno, 2012
46	Grassland_2013	Total number of grassland passerine individuals observed on rteno, 2013
47	Grassland_2014	Total number of grassland passerine individuals observed on rteno, 2014
48	PasserineGrassland_2010	Total number of grassland passerine individuals observed on rteno, 2010
49	PasserineGrassland_2011	Total number of grassland passerine individuals observed on rteno, 2011
50	PasserineGrassland_2012	Total number of grassland passerine individuals observed on rteno, 2012
51	PasserineGrassland_2013	Total number of grassland passerine individuals observed on rteno, 2013
52	PasserineGrassland_2014	Total number of grassland passerine individuals observed on rteno, 2014

spp_richness_all_species.csv: Comma-delimited ASCII text file containing a count of the observed and estimated species richness for all species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

- Missing data are represented with a " ".
- Includes exotic species.
- Excludes hybrid species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	Rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for All Species, 2010
4	est_species_2010	Estimated Species Richness for All Species, 2010
5	obs_species_2011	Observed Species Richness for All Species, 2011
6	est_species_2011	Estimated Species Richness for All Species, 2011
7	obs_species_2012	Observed Species Richness for All Species, 2012
8	est_species_2012	Estimated Species Richness for All Species, 2012
9	obs_species_2013	Observed Species Richness for All Species, 2013
10	est_species_2013	Estimated Species Richness for All Species, 2013
11	obs_species_2014	Observed Species Richness for All Species, 2014
12	est_species_2014	Estimated Species Richness for All Species, 2014

spp_richness_exotic_passerine_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for exotic passerine species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

- Missing data are represented with a "".
- Passerine species identified by the Order Passeriformes by the BBS (see \Supplements\BBS_MasterSpeciesList.csv).
- Excludes hybrid species.
- Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Exotic Passerine Species, 2010
4	est_species_2010	Estimated Species Richness for Exotic Passerine Species, 2010
5	obs_species_2011	Observed Species Richness for Exotic Passerine Species, 2011
6	est_species_2011	Estimated Species Richness for Exotic Passerine Species, 2011
7	obs_species_2012	Observed Species Richness for Exotic Passerine Species, 2012
8	est_species_2012	Estimated Species Richness for Exotic Passerine Species, 2012
9	obs_species_2013	Observed Species Richness for Exotic Passerine Species, 2013
10	est_species_2013	Estimated Species Richness for Exotic Passerine Species, 2013
11	obs_species_2014	Observed Species Richness for Exotic Passerine Species, 2014
12	est_species_2014	Estimated Species Richness for Exotic Passerine Species, 2014

spp_richness_exotic_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for exotic species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

- Missing data are represented with a "".
- Excludes unidentified White-winged / Yellow-chevroned Parakeet (AOU=3827).

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Exotic Species, 2010
4	est_species_2010	Estimated Species Richness for Exotic Species, 2010
5	obs_species_2011	Observed Species Richness for Exotic Species, 2011
6	est_species_2011	Estimated Species Richness for Exotic Species, 2011
7	obs_species_2012	Observed Species Richness for Exotic Species, 2012
8	est_species_2012	Estimated Species Richness for Exotic Species, 2012
9	obs_species_2013	Observed Species Richness for Exotic Species, 2013
10	est_species_2013	Estimated Species Richness for Exotic Species, 2013
11	obs_species_2014	Observed Species Richness for Exotic Species, 2014
12	est_species_2014	Estimated Species Richness for Exotic Species, 2014

spp_richness_forestWoodland_passerine_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for forest-woodland passerine species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN(https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

- Missing data are represented with a "".
- Forest-woodland species based on Breeding Bird Survey Species Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).
- Passerine species identified by the Order Passeriformes by the BBS (see \Supplements\BBS_MasterSpeciesList.csv).
- Excludes hybrid species.
- Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Forest-Woodland Passerine Species, 2010
4	est_species_2010	Estimated Species Richness for Forest-Woodland Passerine Species, 2010
5	obs_species_2011	Observed Species Richness for Forest-Woodland Passerine Species, 2011
6	est_species_2011	Estimated Species Richness for Forest-Woodland Passerine Species, 2011
7	obs_species_2012	Observed Species Richness for Forest-Woodland Passerine Species, 2012
8	est_species_2012	Estimated Species Richness for Forest-Woodland Passerine Species, 2012
9	obs_species_2013	Observed Species Richness for Forest-Woodland Passerine Species, 2013
10	est_species_2013	Estimated Species Richness for Forest-Woodland Passerine Species, 2013
11	obs_species_2014	Observed Species Richness for Forest-Woodland Passerine Species, 2014
12	est_species_2014	Estimated Species Richness for Forest-Woodland Passerine Species, 2014

spp_richness_forestWoodland_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for forest-woodland species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

- Missing data are represented with a "".
- Forest-woodland species based on Breeding Bird Survey Species Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).
- Excludes exotic and hybrid species.
- Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Forest-Woodland Species, 2010
4	est_species_2010	Estimated Species Richness for Forest-Woodland Species, 2010
5	obs_species_2011	Observed Species Richness for Forest-Woodland Species, 2011
6	est_species_2011	Estimated Species Richness for Forest-Woodland Species, 2011
7	obs_species_2012	Observed Species Richness for Forest-Woodland Species, 2012
8	est_species_2012	Estimated Species Richness for Forest-Woodland Species, 2012
9	obs_species_2013	Observed Species Richness for Forest-Woodland Species, 2013
10	est_species_2013	Estimated Species Richness for Forest-Woodland Species, 2013
11	obs_species_2014	Species Richness Observed for Forest-Woodland Species, 2014
12	est_species_2014	Species Richness Estimated for Forest-Woodland Species, 2014

richness for grassland species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

- Missing data are represented with a "".
- Grassland species based on Breeding Bird Survey Species Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).
- Passerine species identified by the Order Passeriformes by the BBS (see \Supplements\BBS MasterSpeciesList.csv).
- Excludes exotic and hybrid species.
- Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Grassland Passerine Species, 2010
4	est_species_2010	Estimated Species Richness for Grassland Passerine Species, 2010
5	obs_species_2011	Observed Species Richness for Grassland Passerine Species, 2011
6	est_species_2011	Estimated Species Richness for Grassland Passerine Species, 2011
7	obs_species_2012	Observed Species Richness for Grassland Passerine Species, 2012
8	est_species_2012	Estimated Species Richness for Grassland Passerine Species, 2012
9	obs_species_2013	Observed Species Richness for Grassland Passerine Species, 2013
10	est_species_2013	Estimated Species Richness for Grassland Passerine Species, 2013
11	obs_species_2014	Observed for Species Richness Grassland Passerine Species, 2014
12	est_species_2014	Estimated Species Richness for Grassland Passerine Species, 2014

spp_richness_grassland_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for grassland species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

- Missing data are represented with a "".
- Grassland species based on Breeding Bird Survey Species Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).
- Excludes exotic and hybrid species.
- Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Grassland Species, 2010
4	est_species_2010	Estimated Species Richness for Grassland Species, 2010
5	obs_species_2011	Observed Species Richness for Grassland Species, 2011
6	est_species_2011	Estimated Species Richness for Grassland Species, 2011
7	obs_species_2012	Observed Species Richness for Grassland Species, 2012
8	est_species_2012	Estimated Species Richness for Grassland Species, 2012
9	obs_species_2013	Observed Species Richness for Grassland Species, 2013
10	est_species_2013	Estimated Species Richness for Grassland Species, 2013
11	obs_species_2014	Observed Species Richness for Grassland Species, 2014
12	est_species_2014	Estimated Species Richness for Grassland Species, 2014

spp_richness_native_passerine_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for native passerine species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

- Missing data are represented with a "".
- Passerine species identified by the Order Passeriformes by the BBS (see \Supplements\BBS MasterSpeciesList.csv).
- Excludes exotic and hybrid species.

• Excludes unidentified species if they cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Native Passerine Species, 2010
4	est_species_2010	Estimated Species Richness for Native Passerine Species, 2010
5	obs_species_2011	Observed Species Richness for Native Passerine Species, 2011
6	est_species_2011	Estimated Species Richness for Native Passerine Species, 2011
7	obs_species_2012	Observed Species Richness for Native Passerine Species, 2012
8	est_species_2012	Estimated Species Richness for Native Passerine Species, 2012
9	obs_species_2013	Observed Species Richness for Native Passerine Species, 2013
10	est_species_2013	Estimated Species Richness for Native Passerine Species, 2013
11	obs_species_2014	Observed Species Richness for Native Passerine Species, 2014
12	est_species_2014	Estimated Species Richness for Native Passerine Species, 2014

spp_richness_native_species.csv: Comma-delimited ASCII text file of the observed and estimated species richness for native species detected on Breeding Bird Survey routes in the coterminous United States, as calculated by COMDYN (https://www.usgs.gov/centers/pwrc/software).

- Missing data are represented with a "".
- Excludes exotic and hybrid species.
- Excludes unidentified species that cannot be unambiguously assigned to a species.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Native Species, 2010
4	est_species_2010	Estimated Species Richness for Native Species, 2010
5	obs_species_2011	Observed Species Richness for Native Species, 2011
6	est_species_2011	Estimated Species Richness for Native Species, 2011
7	obs_species_2012	Observed Species Richness for Native Species, 2012
8	est_species_2012	Estimated Species Richness for Native Species, 2012
9	obs_species_2013	Observed Species Richness for Native Species, 2013
10	est_species_2013	Estimated Species Richness for Native Species, 2013
11	obs_species_2014	Observed Species Richness for Native Species, 2014
12	est_species_2014	Estimated Species Richness for Native Species, 2014

COMDYN (https://www.usgs.gov/centers/pwrc/software).

Additional Notes:

• Missing data are represented with a "".

 Passerine species identified by the Order Passeriformes by the BBS (see \Supplements\BBS MasterSpeciesList.csv).

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	rteno	Breeding Bird Survey (BBS) route $xxyyy$, where $xx = BBS$ state code, $yyy = BBS$ route
2	BCR	Bird Conservation Region (BCR) in which the MBR centroid falls
3	obs_species_2010	Observed Species Richness for Passerine Species, 2010
4	est_species_2010	Estimated Species Richness for Passerine Species, 2010
5	obs_species_2011	Observed Species Richness for Passerine Species, 2011
6	est_species_2011	Estimated Species Richness for Passerine Species, 2011
7	obs_species_2012	Observed Species Richness for Passerine Species, 2012
8	est_species_2012	Estimated Species Richness for Passerine Species, 2012
9	obs_species_2013	Observed Species Richness for Passerine Species, 2013
10	est_species_2013	Estimated Species Richness for Passerine Species, 2013
11	obs_species_2014	Observed Species Richness for Passerine Species, 2014
12	est_species_2014	Estimated Species Richness for Passerine Species, 2014

Supplemental data

Within the data product these comma-delimited ASCII text files can be found under: \Supplements\...

BBS_MasterSpeciesList.csv: Comma-delimited ASCII text file containing the complete list of avian species in the Breeding Bird Survey master species list.

#	<u>Variable</u>	<u>Description</u>
1	AOU	Unique Species Identification Number
2	English_Common_Name	Common Name
3	Order	Order Taxonomic Rank
4	Family	Family Taxonomic Rank
5	Genus	Genus Taxonomic Rank
6	Species	Species Taxonomic Rank

BBS_SpeciesGroupings.pdf: PDF file of species groupings based on breeding habitat, nest type, migration form, and nest location as defined by the Breeding Bird Survey (BBS).

BCR.txt: ASCII text file containing Bird Conservation Regions (BCR) descriptions.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	BCRId	Unique BCR Identification Number
2	BCRName	Common Name
3	BCRNameFrench	French Common Name
4	BCRNameSpanish	Spanish Common Name

data_set_modifications.txt: ASCII text file containing the filters applied to the Breeding Bird Survey (BBS) data, 2010-2014.

exotic SpeciesList.csv: Comma-delimited ASCII text file containing the list of species identified as exotic.

<u>#</u>	<u>Variable</u>	Description
1	AOU	Unique Species Identification Number
2	common name	Species Common Name

forestWoodland_SpeciesList.csv: Comma-delimited ASCII text file containing the list of species identified as Forest-Woodland, as defined by the Breeding Bird Survey Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html) and Sauer et al. (2013).

#	<u>Variable</u>	<u>Description</u>
1	common_name	Species Common Name
2	sci_name	Species Scientific Name
3	AOU	Unique Species Identification Number
4	Woodand_BBS	Woodland Species as Defined by the Breeding Bird Survey
5	Forest_Boreal_Sauer	Boreal Forest Species as Defined by Sauer et al. (2013)
6	Forest Eastern Sauer	Eastern Forest Species as Defined by Sauer et al. (2013)
7	Forest_Subtropical_Sauer	Subtropical Forest Species as Defined by Sauer et al. (2013)
8	Forest Western Sauer	Western Forest Species as Defined by Sauer et al. (2013)

grassland_SpeciesList.csv: Comma-delimited ASCII text file containing the list of species identified as grassland, as defined by the Breeding Bird Survey and Sauer et al. (2013) Grouping (https://www.mbr-pwrc.usgs.gov/bbs/htmgu/guildlst.html).

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	common_name	Species Common Name

2	sci_name	Species Scientific Name
3	AOU	Numeric Identifier, Unique to each species
4	Grassland_BBS	Grassland Species as Defined by the Breeding Bird Survey
5	Grassland Sauer	Grassland Species as Defined by Sauer et al. (2013)

RegionCodes.txt: ASCII text file containing the Country, State, Canadian provinces, and U.S. Territories in the Breeding Bird Survey (BBS) data.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	CountryNum	Numeric code for each country
2	CountryName	Country Name
3	RegionCode	Number code for each State, Canadian Province, and U.S. Territory
4	State/Prov/TerrName	State, Canadian Province, and U.S. Territory Name

RunProtocolID.csv: Comma-delimited ASCII text file containing the run protocol for routes in the Breeding Bird Survey (BBS) data.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	RPID	Run protocol identification number
2	RunProtocol_English	General description for each RPID
3	RunProtocolDesc	Detailed description for each RPID

Runtype.txt: ASCII text file containing the criteria for acceptable Breeding Bird Survey (BBS) routes, 2010-2014.

Unidentified_speciesList.csv: Comma-delimited ASCII text file containing American Ornithologist's Union (AOU) species codes.

<u>#</u>	<u>Variable</u>	<u>Description</u>
1	AOU	American Ornithologist's Union code
2	common name	Common name