Corridors and Key Habitat Areas

File Geodatabase Feature Class

Tags

Proposed Global Important Bird Areas, Global Important Bird Areas, IBA, Endangered Species Act Critical Habitat, ESA, Corridors and Key Habitat Areas, American Bird Conservancy

Summary

This dataset displays polygon data for Corridors and Key Habitat Areas in the United States.

Description

Wind Energy and Sensitive Bird Habitat: Methodology and Links

Turbine Locations:

The locations of the wind turbines used in the study were derived using data supplied publicly by FAA (for proposed turbines) and USGS (for existing turbines). These data sets provide specific locations for individual wind turbines in GIS form.

As there is some overlap due to time lag between the data sets, the GIS files were de-duplicated by removing any turbines that are shown as being located within 50 feet or less of each other (that may refer to the same turbine). We have also removed any proposed turbines that have already been assessed as being high risk for air traffic as they will likely not be constructed. Decommissioned turbines were also removed from the assessment.

GIS analysis was conducted on behalf of ABC by Eric Wengert, a graduate student at Mississippi State University.

Bird Areas:

Orange Areas: High Importance

Solid orange signifies Globally Important Bird Areas. (Click here for a definition and more information.) Areas shown in a tint of orange are one of the following:

-Key Migration Corridors where bird risk will differ from season to season, and may also differ from year to year among specific locations within the corridor.

-Key Habitat Areas for birds on the Red WatchList (plus both widespread eagle species, and Ferruginous Hawk), where the species may not be present year round. Birds are likely to be most at risk from wind development where their optimal habitat is found within the tinted area.

-Marine Important Bird Areas where bird usage is also seasonal.

It might be possible to develop wind within some of these tinted areas if seasonal shutdowns during migration are feasible, or if micro-siting can enable the key habitat areas to be completely avoided.

Red Areas: Critical Importance

Wind power (and its associated infrastructure) is not appropriate for any of these areas and their immediate environs. These areas include:

-Important Bird Areas with congregations of 500,000 or more migratory birds at some point during the year.

-Important Bird Areas for the rarest WatchList birds—or those that have very specific and limited habitat requirements and/or are especially likely to be vulnerable to wind-related mortality or habitat impacts.

-Critical Habitat designated for bird species listed under the Endangered Species Act (ESA).

-Important habitat for bird species listed under the ESA for which ESA Critical Habitat has not yet been designated

-The highest-importance "bottleneck areas" for migrant birds, such as those where 500,000 or more birds are present seasonally.

Data Sources:

The bird data were derived from a variety of sources. Examples of primary sources include ABC's list of the 500 most Important Bird Areas in the U.S., data on key sage-grouse areas from the Bureau of Land Management, and data on the migration corridor of the Whooping Crane from the U.S. Fish and Wildlife Service (FWS). "Critical Habitat" designated by FWS as authorized by the Endangered Species Act was downloaded from the FWS website.

Site boundaries are either provided by existing federal or other GIS layers, or produced by ABC using the best available data, maps, and expert staff opinion. There is currently insufficient quantitative data available to set numeric boundaries for the "edges" of most migration corridors, and these may also change from year to year depending on weather and other conditions. The boundaries of these areas are therefore set based on ABC's best expert judgment as to where the greatest concentration of birds will be present during regular migration periods.

Another very useful source on migration patterns are the animated migration maps produced by the Cornell Laboratory of Ornithology. Click here to view examples. California, Illinois, Montana, and North Carolina State Audubon Chapters also made their state IBAs available in polygon form.

Boundaries for Key Habitat Areas are based on greatest breeding densities from Breeding Bird Survey (BBS) maps combined with expert staff opinion. For the few Red WatchList species where BBS data were unavailable, entire species range boundaries were used.

Credits
American Bird Conservancy

Use limitations
Acknowledgment of the American Bird Conservancy and Argonne National Laboratory (ANL) would be appreciated in products derived from this data.

ArcGIS Metadata ►

Topics and Keywords ►

* CONTENT TYPE Downloadable Data

Hide Topics and Keywords ▲

Citation ►

TITLE Corridors and Key Habitat Areas
CREATION DATE 2015-04-01 00:00:00
PUBLICATION DATE 2015-04-01 00:00:00

PRESENTATION FORMATS * digital map

Hide Citation ▲

Citation Contacts ►

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CONTACT'S POSITION National Coordinator, Bird Smart Wind Energy Campaign
CONTACT'S ROLE originator

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Hide Contact information ▲

Hide Citation Contacts ▲

Resource Details ▼

Extents ►

EXTENT
GEOGRAPHIC EXTENT
BOUNDING RECTANGLE
EXTENT TYPE Extent used for searching
* WEST LONGITUDE -116.050004
* EAST LONGITUDE -66.934754
* NORTH LATITUDE 49.347939
* SOUTH LATITUDE 24.244855
* EXTENT CONTAINS THE RESOURCE Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM
* WEST LONGITUDE -12918627.354064
* EAST LONGITUDE -7451142.728759
* SOUTH LATITUDE 2783273.329321
* NORTH LATITUDE 6334106.902898
* EXTENT CONTAINS THE RESOURCE Yes

Hide Extents ▲

Resource Points of Contact ►

POINT OF CONTACT
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CONTACT'S POSITION National Coordinator, Bird Smart Wind Energy Campaign
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Hide Resource Points of Contact ▲

Resource Maintenance ►

RESOURCE MAINTENANCE
UPDATE FREQUENCY as needed

Hide Resource Maintenance ▲

Resource Constraints ►

CONSTRAINTS
LIMITATIONS OF USE
Acknowledgment of the American Bird Conservancy and Argonne National Laboratory (ANL) would be appreciated in products derived from this data.

Hide Resource Constraints ▲

Spatial Reference ►

ARCGIS COORDINATE SYSTEM
* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_WGS_1984
* PROJECTION WGS_1984_Web_Mercator_Auxiliary_Sphere
* COORDINATE REFERENCE DETAILS
PROJECTED COORDINATE SYSTEM
WELL-KNOWN IDENTIFIER 3857
X ORIGIN -22041545.196626503
Y ORIGIN -33272760.666300893
XY SCALE 135368852.55357128
Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 0.001
Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
WELL-KNOWN TEXT PROJCS["WGS_1984_Web_Mercator_Auxiliary_Sphere",GEOGCS

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["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Mercator_Auxiliary_Sphere"],PARAMETER
["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER
["Central_Meridian",0.0],PARAMETER["Standard_Parallel_1",0.0],PARAMETER
["Auxiliary_Sphere_Type",0.0],UNIT["Meter",1.0],AUTHORITY["EPSG",3857]]

REFERENCE SYSTEM IDENTIFIER
* VALUE 3857
* CODESPACE EPSG
* VERSION 7.4.1

Hide Spatial Reference ▲

Spatial Data Properties ►

VECTOR ►
* LEVEL OF TOPOLOGY FOR THIS DATASET geometry only

GEOMETRIC OBJECTS
FEATURE CLASS NAME corridors_key_habitat_areas_abc
* OBJECT TYPE composite
* OBJECT COUNT 202

Hide Vector ▲

ARCGIS FEATURE CLASS PROPERTIES ►

* FEATURE TYPE Simple
* GEOMETRY TYPE Polygon
* HAS TOPOLOGY FALSE
* FEATURE COUNT 202
* SPATIAL INDEX TRUE
* LINEAR REFERENCING FALSE

Hide ArcGIS Feature Class Properties ▲

Hide Spatial Data Properties ▲

Geoprocessing history ▼

Distribution ►

DISTRIBUTION FORMAT
* NAME File Geodatabase Feature Class

Hide Distribution ▲

Fields ►

DETAILS FOR OBJECT corridors_key_habitat_areas_abc ►
* TYPE Feature Class
* ROW COUNT 202

FIELD OBJECTID ►

* ALIAS OBJECTID
* DATA TYPE OID
* WIDTH 4
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Internal feature number.

* DESCRIPTION SOURCE
  Esri

* DESCRIPTION OF VALUES Sequential unique whole numbers that are automatically generated.

Hide Field OBJECTID ▲

FIELD Shape ►
* ALIAS Shape
* DATA TYPE Geometry
* WIDTH 0
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
  Feature geometry.

* DESCRIPTION SOURCE
  Esri

* DESCRIPTION OF VALUES Coordinates defining the features.

Hide Field Shape ▲

FIELD Name ►
* ALIAS Name
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
  Corridors and Key Habitat Area Name

DESCRIPTION SOURCE
  American Bird Conservancy

Hide Field Name ▲

FIELD FolderPath ►
* ALIAS FolderPath
* DATA TYPE String
* WIDTH 255
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
  Folder Path

DESCRIPTION SOURCE
  American Bird Conservancy

Hide Field FolderPath ▲

FIELD Category ►
* ALIAS Category
* DATA TYPE String
* WIDTH 50
* PRECISION 0
* SCALE 0
FIELD DESCRIPTION
Category

DESCRIPTION SOURCE
Argonne National Laboratory

Hide Field Category ▲

FIELD Shape_Length ►
* ALIAS Shape_Length
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
Length of feature in internal units.

* DESCRIPTION SOURCE
Esri

* DESCRIPTION OF VALUES Positive real numbers that are automatically generated.

Hide Field Shape_Length ▲

FIELD Shape_Area ►
* ALIAS Shape_Area
* DATA TYPE Double
* WIDTH 8
* PRECISION 0
* SCALE 0
* FIELD DESCRIPTION
Area of feature in internal units squared.

* DESCRIPTION SOURCE
Esri

* DESCRIPTION OF VALUES Positive real numbers that are automatically generated.

Hide Field Shape_Area ▲

Hide Details for object corridors_key_habitat_areas_abc ▲

Hide Fields ▲

Metadata Details ►

* Metadata language English (UNITED STATES)
Metadata character set utf8 - 8 bit UCS Transfer Format

Scope of the data described by the metadata * dataset
Scope name * dataset

* Last update 2015-04-02

ArcGIS metadata properties
Metadata format ArcGIS 1.0
Metadata style FGDC CSDGM Metadata
Standard or profile used to edit metadata FGDC

Created in ArcGIS for the item 2015-03-10 11:48:55
Last modified in ArcGIS for the item 2015-04-02 08:56:14

Automatic updates
Have been performed Yes
Last update 2015-04-02 08:56:14

Hide Metadata Details ▲

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Organization's name Argonne National Laboratory
Contact's position GIS Assistant/Specialist
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Hide Contact information ▲

Hide Metadata Contacts ▲

Metadata Maintenance ►

Maintenance
Update frequency as needed

Hide Metadata Maintenance ▲

Thumbnail and Enclosures ►

THUMBNAIL

THUMBNAIL TYPE JPG

Hide Thumbnail and Enclosures .&

FGDC Metadata (read-only) T