

West Africa Coastal Vulnerability Mapping:  
Subset of Global Mammal and Amphibian Richness Grids, 2015 Release

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Socioeconomic Data and Applications Center (SEDAC)  
Center for International Earth Science Information Network (CIESIN)

Columbia University

61 Route 9W

P.O. Box 1000

Palisades, NY 10964

Phone: 1 (845) 365-8920

FAX: 1 (845) 365-8922

Please address comments to SEDAC User Services

<http://sedac.uservoice.com/knowledgebase/topics/113811>

## DESCRIPTION

This data set was used as an indicator in the analysis presented in the report, "Mapping the Exposure of Socioeconomic and Natural Systems of West Africa to Coastal Climate Stressors" (de Sherbinin et al., 2014; de Sherbinin et al., 2015). The table below provides information about the indicator as it was used in the analysis, including a description of the input data (where relevant) and of the processing completed to produce the indicator.

<b>Title:</b>	Threatened Species Richness
<b>Indicator Code:</b>	THREAT
<b>Component:</b>	Exposed Systems
<b>Rationale:</b>	Areas with higher species richness are at greater risk to climate stressors.
<b>Data Set:</b>	CIESIN has gridded the entire collection of IUCN Red List species distribution maps for amphibians, birds and mammals. However, due to restrictions on redistribution of the bird data, only data for mammals and amphibians are available as part of the Gridded Species Distribution collection at <a href="http://sedac.ciesin.columbia.edu/data/collection/species">http://sedac.ciesin.columbia.edu/data/collection/species</a> . For the purposes of the

	<p>West Africa coastal vulnerability analysis, all threatened species by threat status (vulnerable, endangered, and critically endangered) and by class (including birds) were added to create a threatened species density map for this indicator. The individual rasters of threatened amphibians and threatened mammals are included in the Subset of Global Mammal and Amphibian Richness Grids, 2015 Release data set.</p> <p>The IUCN data are available from: <a href="http://www.iucnredlist.org/technical-documents/spatial-data">http://www.iucnredlist.org/technical-documents/spatial-data</a>.</p> <p>Input data source citations:</p> <p>International Union for Conservation of Nature (IUCN), and Center for International Earth Science Information Network (CIESIN), Columbia University. 2015. Gridded Species Distribution: Global Mammal Richness Grids, 2015 Release. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <a href="https://doi.org/10.7927/H4N014G5">https://doi.org/10.7927/H4N014G5</a>.</p> <p>International Union for Conservation of Nature (IUCN), and Center for International Earth Science Information Network (CIESIN), Columbia University. 2015. Gridded Species Distribution: Global Amphibian Richness Grids, 2015 Release. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC). <a href="https://doi.org/10.7927/H4RR1W66">https://doi.org/10.7927/H4RR1W66</a>.</p>
<b>Units:</b>	Number of threatened species (vulnerable, endangered, and critically endangered) per 1 km grid cell
<b>Limitations:</b>	Data limitations are documented on the Red List web site, <a href="http://www.iucnredlist.org">http://www.iucnredlist.org</a> .
<b>Spatial Extent:</b>	The spatial extent of the Subset of Global Mammal and Amphibian Richness Grids, 2015 Release rasters is the 200 km coastal zone of the ten Guinea Current countries of coastal West Africa: Guinea-Bissau, Guinea, Sierra Leone, Liberia, Cote d'Ivoire, Ghana, Togo, Benin, Nigeria, Cameroon.
<b>Spatial Resolution:</b>	30 arc-second (~1 km)
<b>Time Period:</b>	IUCN data downloaded in April 2013.
<b>Additional Notes:</b>	

## ACCESSING THE DATA

SEDAC URL: <http://sedac.ciesin.columbia.edu/data/collection/wacvm>.

Permanent URL: <https://doi.org/10.7927/H4125QK5>.

The data are available as compressed zipfiles of GeoTIFFs or shapefiles. Downloaded files need to be uncompressed in a single folder using either WinZip (Windows file compression utility) or similar application before they can be accessed by your GIS software package. Users should expect an increase in the size of downloaded data after decompression.

The data are stored in geographic coordinates of decimal degrees based on the World Geodetic System spheroid of 1984 (WGS84).

## DISCLAIMER

CIESIN follows procedures designed to ensure that data disseminated by CIESIN are of reasonable quality. If, despite these procedures, users encounter apparent errors or misstatements in the data, they should contact SEDAC User Services at [ciesin.info@ciesin.columbia.edu](mailto:ciesin.info@ciesin.columbia.edu). Neither CIESIN nor NASA verifies or guarantees the accuracy, reliability, or completeness of any data provided. CIESIN provides this data without warranty of any kind whatsoever, either expressed or implied. CIESIN shall not be liable for incidental, consequential, or special damages arising out of the use of any data provided by CIESIN.

## USE CONSTRAINTS

Users are free to use, copy, distribute, transmit, and adapt the work for non-commercial purposes, without restriction, as long as clear attribution of the source is provided and all distributions carry the same share-alike provision.

## RECOMMENDED CITATION(S)

Data set:

International Union for Conservation of Nature (IUCN), and Center for International Earth Science Information Network (CIESIN), Columbia University. 2018. West Africa Coastal Vulnerability Mapping: Subset of Global Mammal and Amphibian Richness Grids, 2015

Release. Palisades, NY: NASA Socioeconomic Data and Applications Center (SEDAC).  
<https://doi.org/10.7927/H4125QK5>. Accessed DAY MONTH YEAR.

## REFERENCES

de Sherbinin, A., Chai-Onn, T., Jaiteh, M., Mara, V., Pistoiesi, L., and Schnarr, E. 2014. Mapping the Exposure of Socioeconomic and Natural Systems of West Africa to Coastal Climate Stressors. Technical Report for the USAID African and Latin American Resilience to Climate Change (ARCC) project. Washington, DC: USAID.

[http://sedac.ciesin.columbia.edu/downloads/docs/wacvm/tbw04-02wacoastalmappingresults\\_cleared.pdf](http://sedac.ciesin.columbia.edu/downloads/docs/wacvm/tbw04-02wacoastalmappingresults_cleared.pdf).

de Sherbinin, A, T. Chai-Onn, M. Jaiteh, V. Mara, L. Pistoiesi, E. Schnarr, and S. Trzaska. 2015. Data Integration for Climate Vulnerability Mapping in West Africa. ISPRS International Journal of Geo-Information 4(4):2561-2582. <https://doi.org/10.3390/ijgi4042561>.

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