Density Model Predictions and Supplementary Report for Fin Whale for the U.S. Gulf of Mexico

Duke University Marine Geospatial Ecology Lab

2015 Version - Final Results

Overview

This zip file contains the final model predictions and supplementary report from the "2015 version" of the density model for Fin Whale in the Gulf of Mexico region, produced by the Duke Marine Geospatial Ecology Lab and collaborators. These results accompany the Roberts et al. (2016) publication, which documents their production. We highly recommend you read that paper and the Supplementary Information document available with it before using these results.

This zip file and results for other taxa are available for download at http://seamap.env.duke.edu/models/Duke-EC-GOM-2015/

Citation

If you use these results in a scientific publication or report, please cite:

Roberts JJ, Best BD, Mannocci L, Fujioka E, Halpin PN, Palka DL, Garrison LP, Mullin KD, Cole TVN, Khan CB, McLellan WM, Pabst DA, Lockhart GG (2016) Habitat-based cetacean density models for the U.S. Atlantic and Gulf of Mexico. Scientific Reports 6: 22615. doi: 10.1038/srep22615

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Contents of this Zip File

***_abundance.img** - Raster giving the estimated mean year-round abundance (number of individual animals) per grid cell. The cells are 100 square km. Therefore, to convert to density (individuals per 1 square km), divide the cell values by 100.

***_standard_error.img** - Raster giving the estimated standard error of the abundance estimates. This raster has the same units as the abundance raster.

***_cv.img** - Raster giving the estimated coefficient of variation of the abundance estimates. These values are unitless and were computed as standard error divided by abundance.

***_5_percent.img** and ***_95_percent.img** - Rasters giving the lower (5%) and upper (95%) intervals of a 90% confidence interval around the mean abundance estimate. These rasters have the same units as the abundance raster.

Gulf Of Mexico Fin Whale *.pdf - A taxon-specific, region-specific supplementary report that describes modeling decisions specific to this model and provides diagnostic maps, plots, and statistical output.

***.png** - Maps of abundance and CV. We include these for convenience, in case you do not wish to produce your own from the rasters.

***.mp4** - Animations of daily predictions illustrating temporal dynamics. Only available for species predicted a monthly temporal resolution. Note: these are for illustration purposes only. For management applications, we recommend the monthly maps.

All rasters are in ERDAS IMAGINE (IMG) format and use an Albers equal area projection with a 10km cell size. Please see below for more information.

For More Information

Roberts et al. (2016) and the Supplementary Information document available with it describe the modeling methodology in detail. The taxon-specific, region-specific supplementary report included in this zip file describes modeling decisions specific to this model and provides diagnostic maps, plots, and statistical output. http://seamap.env.duke.edu/models/Duke-EC-GOM-2015/ may provide additional information, such as a list of frequently asked questions.

If none of these resources address your question, please contact Jason Roberts (jason.roberts@duke.edu).