BIRD THE GAP.

Interactive web maps to inspire engagement with the natural world, inform scientific research, and support conservation action

The Cornell Lab of Ornithology | **eBird**

THE BRIEF

Bird the Gap is an outreach-oriented web mapping project to direct birdwatchers to locations currently underrepresented in crowdsourced data compiled by eBird and the Cornell Lab of Ornithology.

RESEARCH

Identify web mapping tools, ideally open source, to:
Visualize worldwide raster data;
Create, host, style, and serve map tiles;
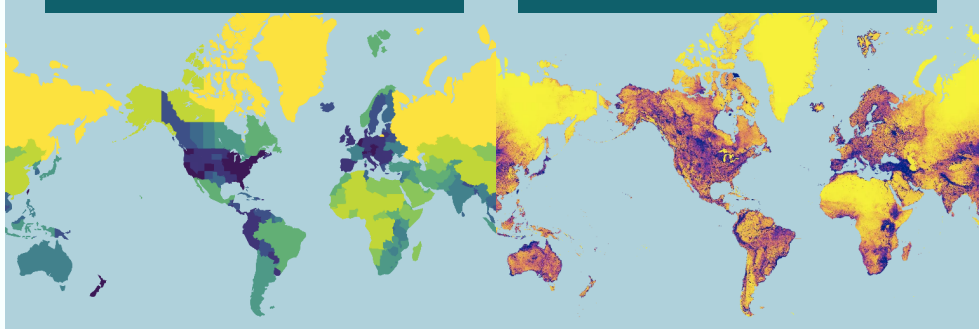Add interactivity to multi-layered maps

DATA PREPARATION, PROTOTYPE, & DOCUMENTATION

The multi-layered interactive web map prototype visualizes the results of two statistical models that examined crowdsourced data from July 2018. In the prototype, the user first sees a map layer depicting data sufficiency for modeling bird abundance. As the user zooms in, the map switches to show the probability of new sighting data for each pixel. **In both cases, yellow represents areas of greatest need.**

WEB MAP WORKFLOW

DATA ANALYSIS IN RSTUDIO

Reclassify data sufficiency layer from its raw state to a relative ranking by quantile.

CREATE MAP TILES IN QGIS & MAPBOX STUDIO

Create pre-rendered MBTiles from the probability layer.

STYLE MAP LAYERS IN MAPBOX STUDIO

Style and define zoom levels for each layer.

ADD INTERACTIVITY WITH MAPBOX GL JS

Use Mapbox's JavaScript library to define desired interactivity.

DEPLOY WEB MAP

Prototype hosted in GitHub.

DOCUMENT & TEST

Solicit feedback from Team eBird. Include suggestions with my process documentation and recommendations for using interactive web maps to engage new and existing birdwatchers.

DATA SUFFICIENCY

PROBABILITY

https://ekamoe.github.io/bird-the-gap/

Information School
UNIVERSITY *of* WASHINGTON

MLIS CAPSTONE PROJECT BY:
Ellen Namakaokealoha Kamoe
June 2020

PROJECT SPONSOR:
Tom Auer, GIS Developer
Cornell Lab of Ornithology | eBird