DATA FROM FIELD TO DATABASE: ELECTRONIC FIELD APP

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WHAT ARE THE NATIONAL AQUATIC RESOURCE SURVEYS?
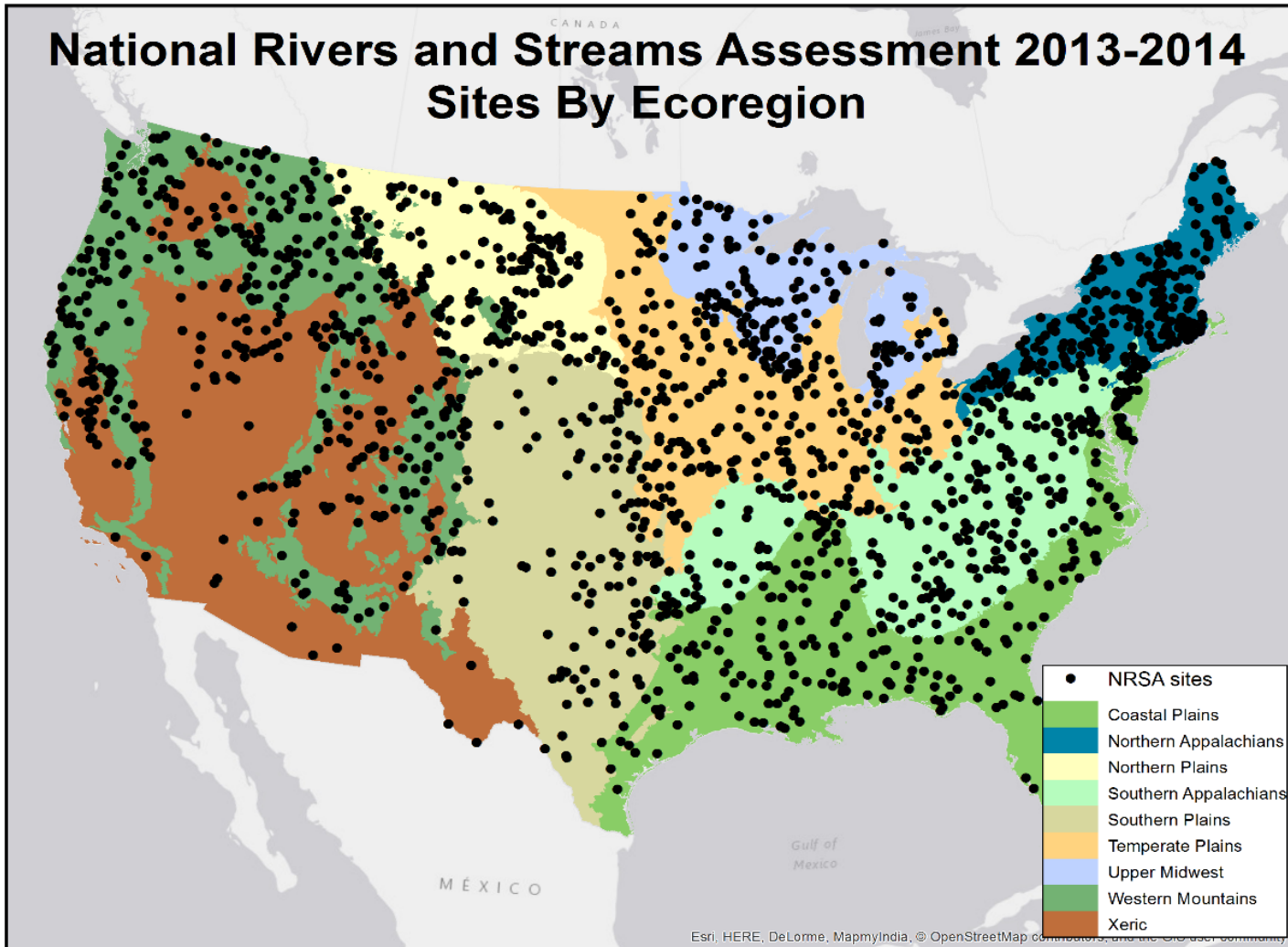
A nationwide probabilistic study that create regionally relevant data to address the following:

Extent of healthy waters. What is the extent of waters that support healthy biological condition, recreation and fish consumption?

Impact of stressors on aquatic life. How widespread are major stressors that affect biological condition, and which are most strongly associated with poor biological condition?

Change over time. Are conditions of our waters getting better, worse or staying the same?

National Rivers and Streams Assessment 2013-2014 Sites By Ecoregion

Legend:
- NRSA sites
- Coastal Plains
- Northern Appalachians
- Northern Plains
- Southern Appalachians
- Southern Plains
- Temperate Plains
- Upper Midwest
- Western Mountains
- Xeric

HUMBLE BEGINNINGS

- Initial app was piloted in NLA 2012 with versions used in NRSA 2013-14, NCCA 2015 and NWCA 2016

- Developed for Windows, Android, and iOS

- Users provided their own tablets

SOLUTIONS

- Starting in 2017 –iPad Air 2

- Easier to troubleshoot problems when only dealing with one app and all using the same device

- App was built only in iOS by contractors- General Dynamics IT.

- During the first year using iPad

  - Over 90% data submission via the app

  - Time savings – field and office

  - Less transcription errors

HOW IT WORKS: DEMO OF THE APP

Crews enter in data into the app during field collection

- Each page can be saved separately
- Can use multiple iPads per site to make collection quicker

Once the crew submits the data (via WIFI), the data goes to our NARS IM

NARS IM returns the data in a JSON files for crews to review for accuracy to their e-mail

- Any changes they submit are automatically updated in NARS IM

WHERE DO WE GO FROM HERE?

- On the ground, real time fixes being applied to the app

- Solicitation of suggestions from field crews who use the app regularly to streamline data collection

- New inclusions in 2019:

  - Q/A features in app prior to submitting data

  - More info buttons/graphics

  - Thinking outside of the app: using R Shiny to look at raw data as well as create instantaneous landowner reports

QUESTIONS

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