

So You Plan To Use a GPS App?



You're invited to help us compare GPS apps to each other, and to a GPS unit. All data will be available publicly for everyone to use. Minimally you'll need one cell phone, one GPS unit, and you'll need to install 3 free GPS apps. Data is entered into a Google Spreadsheet. You can print it out for field-data collection. Note that using location services and running these apps can run down a phone battery quickly, so plan accordingly. Round 1 for Data Collection ends June 9th, 2015.

Purpose: the iDigBio Georeferencing Working Group has developed this plan to compare and contrast selected GPS apps and compare their results with a GPS unit. Using these results, we will produce a set of best practices guidelines for use of these apps and what data to capture when using them.

Design by iDigBio GWG members: Ryan Allen, David Bloom, Deb Paul, Nelson Rios, Mare Nazaire, Carol Spencer, Mike Yost, Una Farrell, Bryan Cody, Marcy Revelez, and Austin Hendy

Data Collection:

1. Download this spreadsheet: <http://tinyurl.com/GWGgpsAppsData>
2. Print out (if desired) as data collection sheet in-the-field.
3. Enter all data into the spreadsheet. Save it named as GPSappsDataYourName2015MMDD.csv
4. Send form by email to dpaul@fsu.edu

Protocol for Data Collection:

1. Find a GPS unit to use with this experiment
2. Install the following free GPS apps on two different phones (or on a tablet)
 - a. **Wolf-GIS**
 - b. **Free GPS** (Hint: try searching "Code burners" which is the name of the app development team).
 - c. **Trimble Outdoors Navigator**
3. Choose 3 locations
 - a. document these with a written locality description
 - b. (optional) take a photo of each location.
4. At each of these locations, **with wi-fi enabled**, please gather the following data from the GPS, and each of the 3 apps
 - a. your name
 - b. recordid (Initials, State Abbrv, Record #e.g., DPFL1)
 - c. date: yyyy-mm-dd
 - d. time
 - e. phone model
 - f. phone OS
 - g. cellular service
 - h. wifi enabled or disabled
 - i. GPS app name (pre-populated)
 - j. GPS app version
 - k. decimal latitude
 - l. decimal longitude
 - m. altitude in meters
 - n. uncertainty
 - o. number of satellites (from GPS), and from apps, if provided
 - p. datum (note if apps provide this or make it clear what it is, or not)
 - q. please write a locality description
 - r. county / parish
 - s. state / province
 - t. country
 - u. optional: (some apps create kml files we could use to compare the two trips)
5. At each of these locations, **with cell phone wi-fi turned off**, please gather GPS data and each of the 3 apps again
6. Extra credit 1.
 - a. Provide a partner with the waypoints stored for each location and have the partner try to find each location.
 - b. [Could combine this as a geo-caching opportunity, for fun].
7. Notes on software ease-of-use
8. Note any uniquely useful features
9. Documentation comments