**Title:** Technical workflow for near real-time reporting of forest census results

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**Running head:**

# Abstract

**Keywords**:

# 1 Introduction

# 2 Materials and Methods

*Important to include the example of a tropical site. Tropical sites have large lag between data collection and finalization because species ID is needed for new recruits. Also, should have an example of paper data collection.*

## 2.1 Step 1: Production of Digital Data Records from Field Census

Data were collected via a variety of mechanisms, ultimately leading to digital data files. Here, we applied three different methods for censuses at ForestGEO plots.

### 2.1.1 ArcGIS App

Examples: BCI, SCBI

### 2.1.2 Fast Field Forms App

Examples (potential): Wabikon, Tyson, and Lilly Dickey (2022)

### 2.1.3 Paper Records

Example: Amacayacu

At Amacayacu, paper records were collected in the [YEAR] census. Data were digitized (entered into spreadsheets) every weekend. Here, we analyzed digital records as collected in the field (no corrections applied).

## 2.2 Step 2: Automated Data Processing via GitHub Actions

### 2.2.1 Data QA/QC

### 2.2.2 Biological Results

Generate maps & .csv files for each of the following (by quadrat, as soon as each quadrat is completed and found to be error-free):

* n stems
* n gained (recruitment)
* n lost (mortality)
* ∆ n stems
* biomass
* woody productivity
* woody mortality
* ∆ biomass
* species richness
* n species gained
* n species lost
* ∆ species richness

### 2.2.3 Results Dashboard

*(Luca will tackle this. We’ll use GitHub pages.)*

### 2.2.4 Step 3: Finalizing Data with Species ID of Recruits

# 3 Results

# 4 Discussion

# 5 Conclusions (optional)

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# Conflict of Interest statement

The authors declare no conflict of interest.

# Authors’ contributions

*[Name of author 1] and [Name of author 2] conceived the ideas and designed methodology; [Name of author 1] and [Name of author 3] collected the data; [Name of author 2] and [Name of author 4] analysed the data; [Name of author 1] and [Name of author 4] led the writing of the manuscript. All authors contributed critically to the drafts and gave final approval for publication.*

# Data availability

# References