Workflow STEP 2 STEP 3 STEP 4 STEP 1 **Research Question Image Processing Obtain Images Interpretation & Measurements** What question are you trying to Prepare your data for analysis Match your workflow to the needs Select datasets that meet the you outlines in Step 1. answer? needs you outlined in Step 1. You might: Also consider: Take a course, read journal articles Crop/Mask Existing Images: Geographic Area Aerial Photography or text books, or learn from a Stitch/Mosaic Satellite Imagery colleague to develop the analysis Geographic Scale Calculate Indexes Size of Objects you want to skills you need to apply to the data Maps **Build 3D Models** Detect to answer your question. Time Scale Collect Your Own: How Often do You Need Images? Drone Start & End Dates Kite or Balloon Time of Day Contract with an aerial Wavelengths photography company

Examples

Question: How has the size of a single beach in California changed over time?

Question:

What is the current extent of

mangroves in Florida?

Budget

Do a literature review.

Datasets: Historic Aerial Images Historic USGS Topo Maps Landsat Imagery

> Datasets: Recent Landsat Imagery

Schedule a satellite company

Combine Existing & New Data

Processing: Mosaic Satellite Data

Processing:

Stitch Photos

Crop Satellite Data

Datasets: Processing: Stitch Photos Calculate NDVI

Measurements: Area of Beach Polygons Transect Length

Measurements: Pixel Classification through Supervised Classification

Ouestion:

How do fertilizer application methods affect plant growth in an agicultural setting?

Drone Imagery taken at different stages of crop development over fields with different treatements

Measurements:

Develop threshold for NDVI Count pixels in each NDVI category