

Basic Georeferencing

Workflows

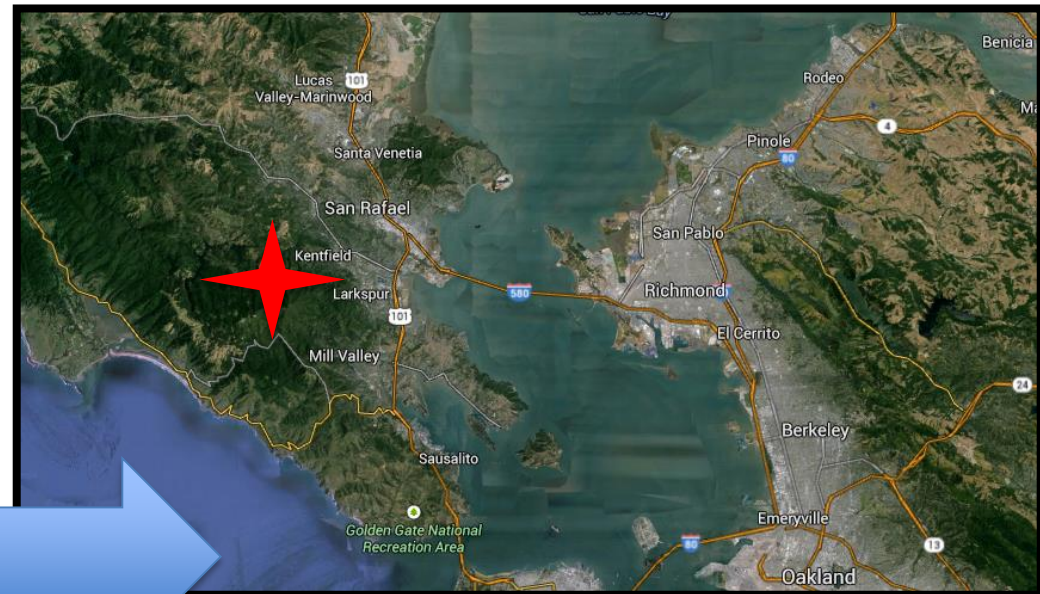
Blaine Marchant
University of Florida
iDigBio RA

Georeference: a numerical description of a place that can be mapped and that describes the spatial extent and associated uncertainty of the locale

Species: *Polypodium californicum*
State: CA
County: Marin
Locality: Marin Municipal Water
District Lands: Mount Tamalpais.
Middle Peak Rd. culvert RT-3



37.930, -122.587



1. Data Acquisition

- Digitized data aggregators
- Specimen data

2. Data Cleaning & Preparation

- Excel
- Scripts
- Google Refine

3. Georeferencing

- Geolocate
- Google Maps
- Other sites

4. Visualize

- GPS Visualizer
- Google Earth

The screenshot displays the iDigBio website interface. At the top, the logo for iDigBio (Integrated Digitized Biocollections) is visible. Below the logo is a navigation bar with links for iDigBio Home, Portal Home, Search Records, Tutorial, Publishers, Research Tools, and Feedback. The main content area is titled "Search Records" and features a search form with a "Full Text Search" input field and a "Search" button. Below the search form are checkboxes for "only records with images" and a link for "Hide Advanced Search". To the right of the search form, the "Current Results" section shows a query: "Genus = tragopogon. Sort" with a "Clear" button. Below the query, it indicates "Records: 1,406" and "Approx. Download Time: Ready, Click to Download". There is also an "Email" field with "dbmarchant@gmail.com" and a "Download" button. A map on the right side of the page shows a world map with red dots indicating the locations of the search results. Below the search form is an "Advanced Search" section with three input fields: "Family" (dwc:family), "Scientific Name" (dwc:scientificName), and "Genus" (tragopogon). Each field has an "Add EOL Synonyms" button and a "What is EOL?" link. Below the input fields are checkboxes for "Present" and "Missing". At the bottom of the advanced search section, there are dropdown menus for "Add a field" (please select), "Sort by" (Scientific Name), and "Direction" (Ascending). There are also "Search", "Clear", and "Reset" buttons, along with a "Tips & Hints" link.

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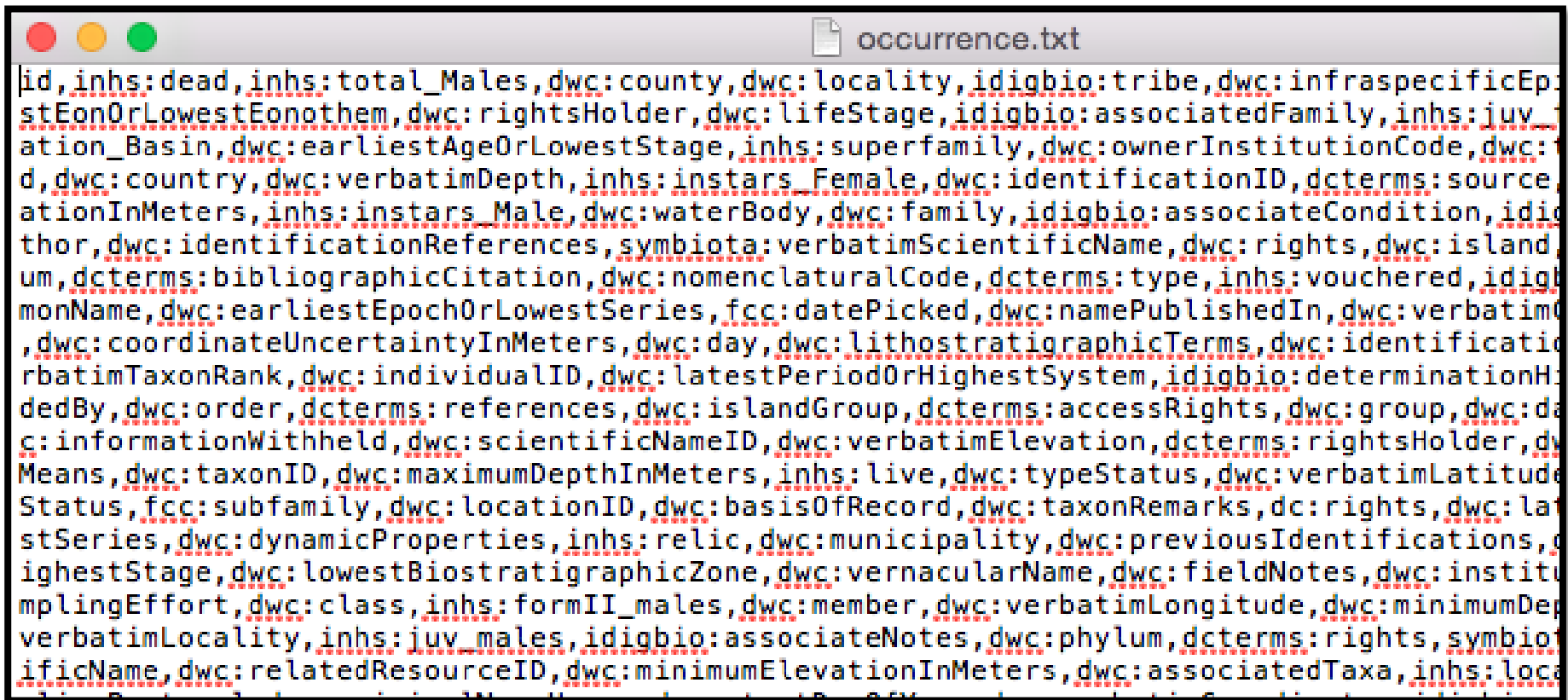
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id, inhs: dead, inhs: total_Males, dwc: county, dwc: locality, idigbio: tribe, dwc: infraspecificEpo
stEonOrLowestEonothem, dwc: rightsHolder, dwc: lifeStage, idigbio: associatedFamily, inhs: juv
ation_Basin, dwc: earliestAgeOrLowestStage, inhs: superfamily, dwc: ownerInstitutionCode, dwc: t
d, dwc: country, dwc: verbatimDepth, inhs: instars_Female, dwc: identificationID, dcterms: source
ationInMeters, inhs: instars_Male, dwc: waterBody, dwc: family, idigbio: associateCondition, idig
thor, dwc: identificationReferences, symbiota: verbatimScientificName, dwc: rights, dwc: island
um, dcterms: bibliographicCitation, dwc: nomenclaturalCode, dcterms: type, inhs: vouchered, idigb
monName, dwc: earliestEpochOrLowestSeries, fcc: datePicked, dwc: namePublishedIn, dwc: verbatimO
, dwc: coordinateUncertaintyInMeters, dwc: day, dwc: lithostratigraphicTerms, dwc: identificatio
rbatimTaxonRank, dwc: individualID, dwc: latestPeriodOrHighestSystem, idigbio: determinationH
dedBy, dwc: order, dcterms: references, dwc: islandGroup, dcterms: accessRights, dwc: group, dwc: da
c: informationWithheld, dwc: scientificNameID, dwc: verbatimElevation, dcterms: rightsHolder, dw
Means, dwc: taxonID, dwc: maximumDepthInMeters, inhs: live, dwc: typeStatus, dwc: verbatimLatitude
Status, fcc: subfamily, dwc: locationID, dwc: basisOfRecord, dwc: taxonRemarks, dc: rights, dwc: lat
stSeries, dwc: dynamicProperties, inhs: relic, dwc: municipality, dwc: previousIdentifications, d
ighestStage, dwc: lowestBiostratigraphicZone, dwc: vernacularName, dwc: fieldNotes, dwc: institu
mplingEffort, dwc: class, inhs: formII_males, dwc: member, dwc: verbatimLongitude, dwc: minimumDep
verbatimLocality, inhs: juv_males, idigbio: associateNotes, dwc: phylum, dcterms: rights, symbiot
ificName, dwc: relatedResourceID, dwc: minimumElevationInMeters, dwc: associatedTaxa, inhs: loca
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	A	B	C	D	E	F	G	H	I	J	K	L
1	Locality	Country	State	County	Latitude	Longitude	Correction Status	Precision	Error Polygon	Multiple Results	ID	Notes
2	Along north side of State Highway 246	USA	CA	Santa Barbara County							198b232b-8ff7-4cbf-b846-28fd2f572bbb	
3	U.C. Blodgett Forest Research Station:	USA	CA	El Dorado							19e8be9e-3fd0-4f8e-893b-809844444de7	
4	San Francisco. Bayview Hills	USA	CA	San Francisco County							18d41762-e352-4710-bba6-a486be9e871f	
5	Wrightwood at Wright Lake	USA	CA	San Bernardino							53454739-73ff-469c-9fb9-86dec30c6d4c	
6	1.0 mi n 55 degrees ne Cabin Creek cor	USA	CA	Mono							54090d71-e165-4769-9479-d72d6f76e9f3	
7	Lake County: Walker Ridge. Picnic Area	USA	CA	Lake							2b09fec0-5dc4-482c-b51b-6146f187299f	
8	1/4 mi from rear gate of Calif. Polytech	USA	CA	San Luis Obispo							07fdad67-49c5-4ed3-ba6d-9730d45fa83d	
9	San Bernardino Mountains Big Meadow	USA	CA	San Bernardino							050641e5-f4b5-407c-b081-d341a20b3ac5	
10	Grissom Road, West Hartford	USA	CT	Hartford County							6c3e87ba-5eda-4628-9dd5-785786381e9b	
11	Between Creston & Shandon along Hw	USA	CA	San Luis Obispo							8c0461e0-8e5f-4548-82e0-dc43eb18d0b2	
12	Warbler Road south of route 604, Mio	USA	MI	Oscoda County							8faccd19-c283-4c1b-8fd6-b1a9fc8a65df	
13	Northern Sierra Nevada Mtns Sierra-at	USA	CA	El Dorado							8e1d0f5d-561b-40a2-93e1-91a9f48abc2	
14	El Dorado County: South Lake Tahoe, b	USA	CA	El Dorado							673eb432-c751-4012-9834-1594d69f4dee	
15	Temblor Range and the Western San Jc	USA	CA	San Luis Obispo							6594e7b3-fc7a-43a4-9bd0-3cf2a889a1ca	
16	0.15 mi. from west intersection with St	USA	CA	Contra Costa							6e36f49b-2378-4805-9b53-1f268ee95d29	

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GEOLocate Web Application
1 possible location found.

Core Features

Lon: -90.190633
Lat: 30.88792
Uncertainty: 90 meters
Edit uncertainty
Parse pattern: HAYS CREEK AT HWY 25

Lon: -90.190633
Lat: 30.88792
Uncertainty: 90 meters
Edit uncertainty
Expand uncertainty to polygon
Parse pattern: HAYS CREEK AT HWY 25

Workbench 1 possible location found

Georeference Options | Draw polygon Place marker Measure

Locality String: Hays Creek, 3 mi. n of Franklinton on hwy. 25

Country: UNITED STATES OF AMERICA

State: La

County: Washington

latitude: 30.88792 longitude: -90.190633 uncertainty: 90 m error polygon

30.88792 -90.190633 90 Unavailable

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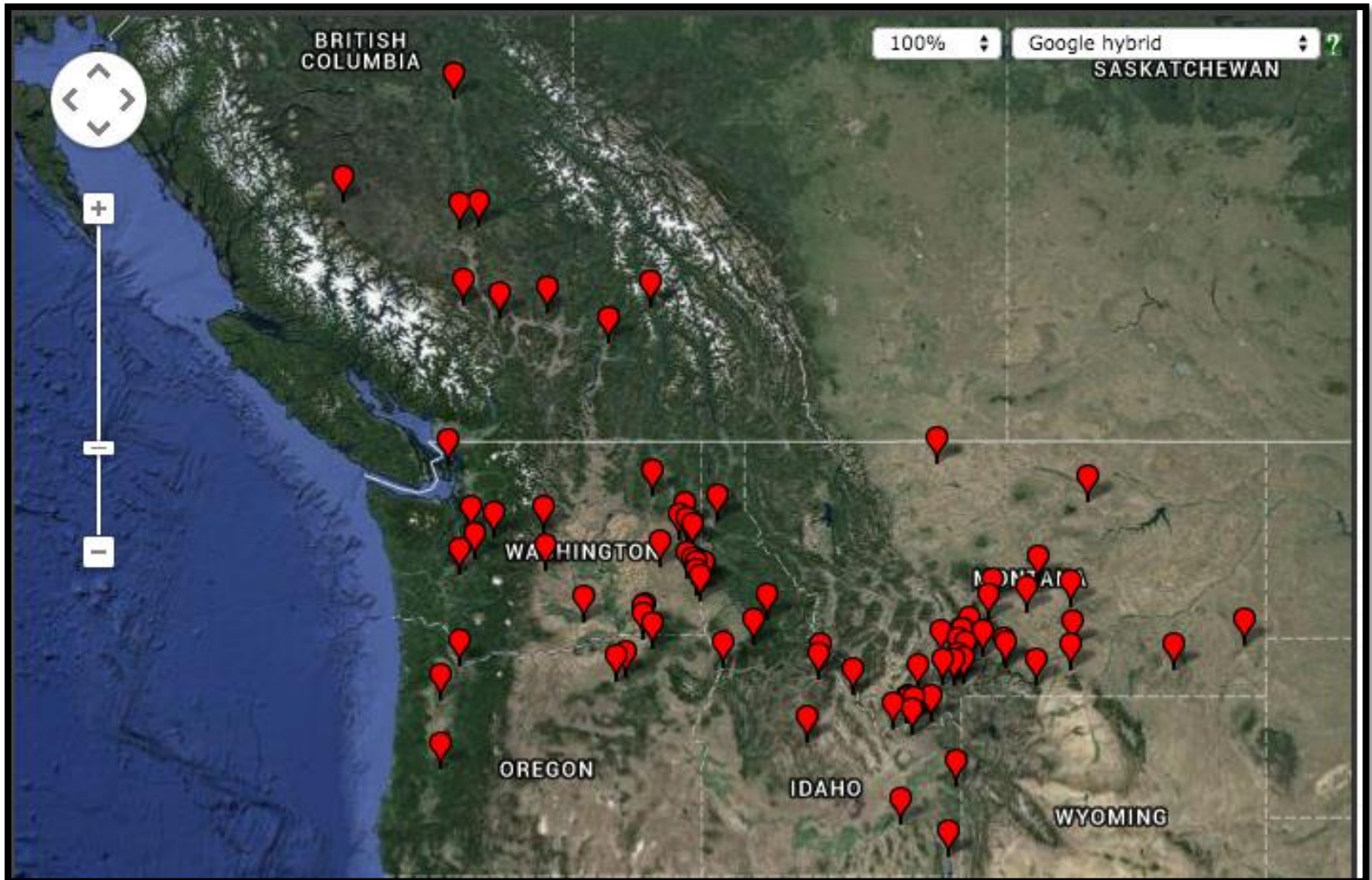
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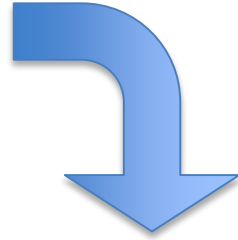
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Collaborative or Batch Geolocate

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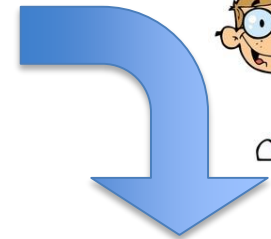
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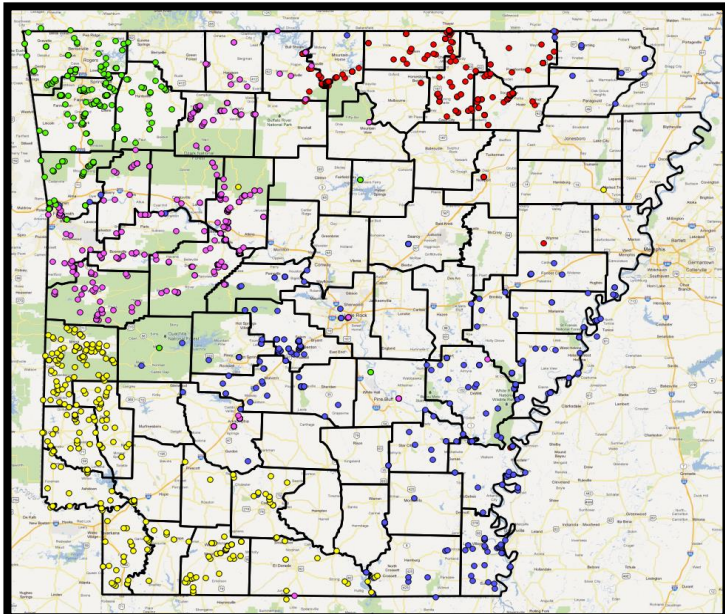
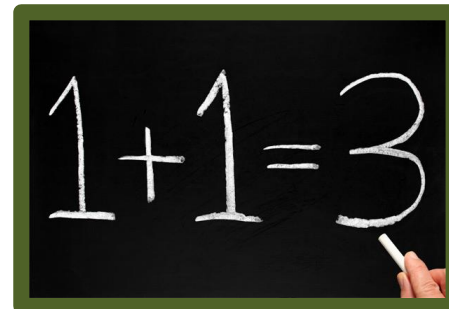
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Additional Resources

- **Digitized Data**
 - iDigBio (www.idigbio.org)
 - GBIF (www.gbif.org)
 - BISON (<http://bison.usgs.ornl.gov/>)
- **Data Cleaning and Preparation**
 - Google Refine (<http://openrefine.org/>)
- **Georeferencing**
 - GeoLocate (<http://www.museum.tulane.edu/geolocate/>)
 - Google Maps (www.maps.google.com)
 - Falling Rain (www.fallingrain.com)
 - Hard to find localities **worldwide**
 - Getty Thesaurus of Geographic Names (<http://bit.ly/Getty-TGN>)
 - **Historic or alternative** locality names **worldwide**
 - JRC Fuzzy Gazetteer (<http://dma.jrc.it/services/fuzzyg/>)
 - **Worldwide** gazetteer for **bad spelling**
- **Links with links**
 - HerpNet (<http://herpnet.org/Gazetteer/GeorefResources.htm>)
 - Canadensys (<http://www.canadensys.net/georeferencing>)
 - iDigBio (<https://www.idigbio.org/wiki/index.php/Georeferencing>)