

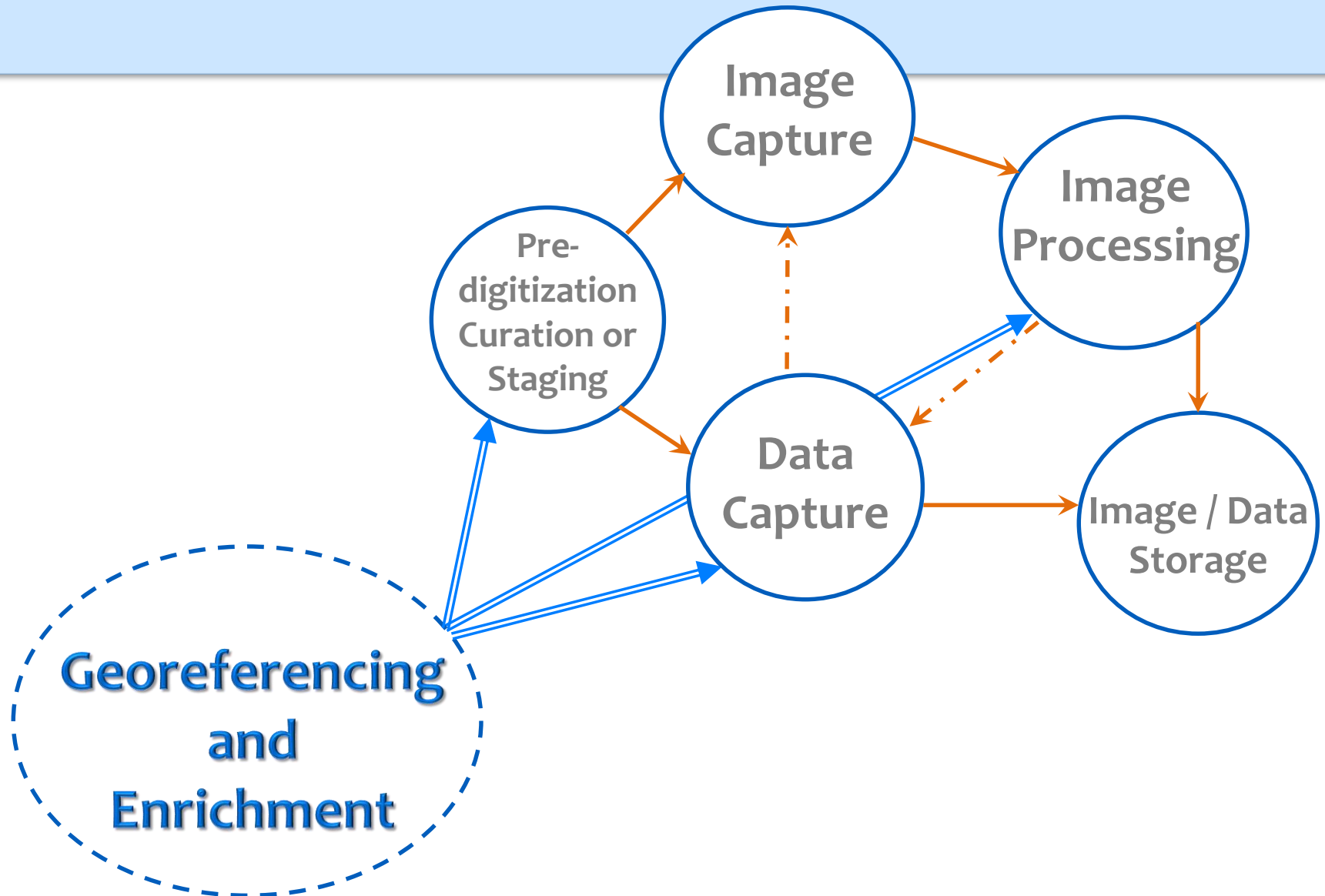
Task Cluster – Georeferencing and Enrichment

Presenter: Deborah Paul
Florida State University
Integrated Digitized Biocollections (iDigBio)

Brazilian Biodiversity Information System (SiBBr) Launching Event
25 November 2014
Brasilia, DF, Brazil



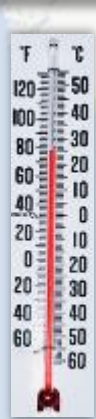
GEOREFERENCING AND ENRICHMENT



What is an ideal georeference?

A numerical description of a place that can be mapped and that describes the spatial extent of a locality and its associated uncertainties as well as possible.

Valdosta



Notebooks
Card Files
Journals
Videos, ...



P. alaskanum *Hultén* No. 7138
National Herbarium of Canada
Yukon
FLORA OF NORTHWEST TERRITORIES
Papaver nudicaule L.
Hab. and Loc., Arctic Coast west of Mackenzie River delta:
Between King Pt. and Kay Pt., 69° 12' N., and 138° to
138° 30' W.
semi-barren ridges
Collector, A. E. Porsild July 23-25, 1934



SWEDEN, Vr. Munktor's K...
Ransäter, Rudstorp, Sandy railway
embankment through pasture-land.
N66°36.454' E13°69.030' (= Trap ID 1002)
23.vii - 12.viii.2005 (=coll.event ID 1378)
eg. Swedish Malaise Trap Project
Swedish Museum of Natural History
NHRS-HYME
000005146

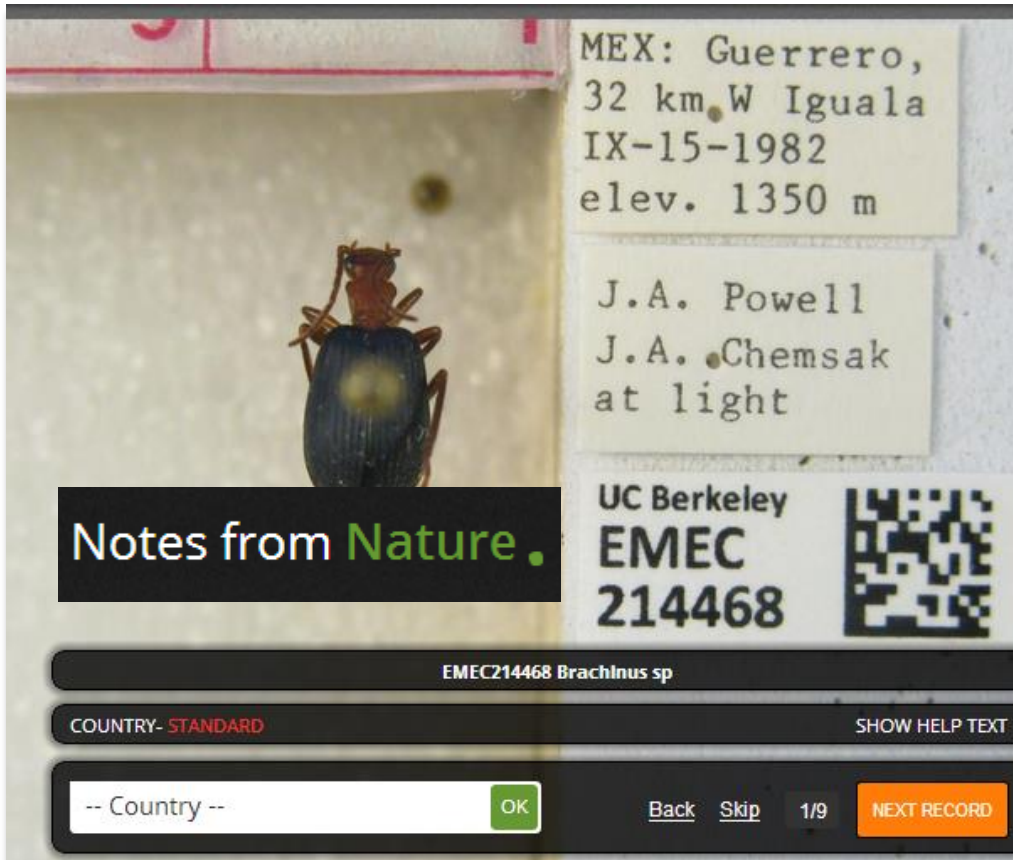


Phelister
viridimicans Schmidt, 1893
ex. Coll. Schmidt-Bickhardt

Brasil

Georeferencing Issue


- **Legacy data** to georeference



MEX: Guerrero,
32 km W Iguala
IX-15-1982
elev. 1350 m

J.A. Powell
J.A. Chemsak
at light

UC Berkeley
EMEC
214468



Notes from Nature.

EMEC214468 *Brachinus* sp

COUNTRY- STANDARD SHOW HELP TEXT

-- Country -- OK Back Skip 1/9 NEXT RECORD

Georeferencing Trend

- Born digital
- Current practices
- Ambassadors for best practices

Check / Share
best practices

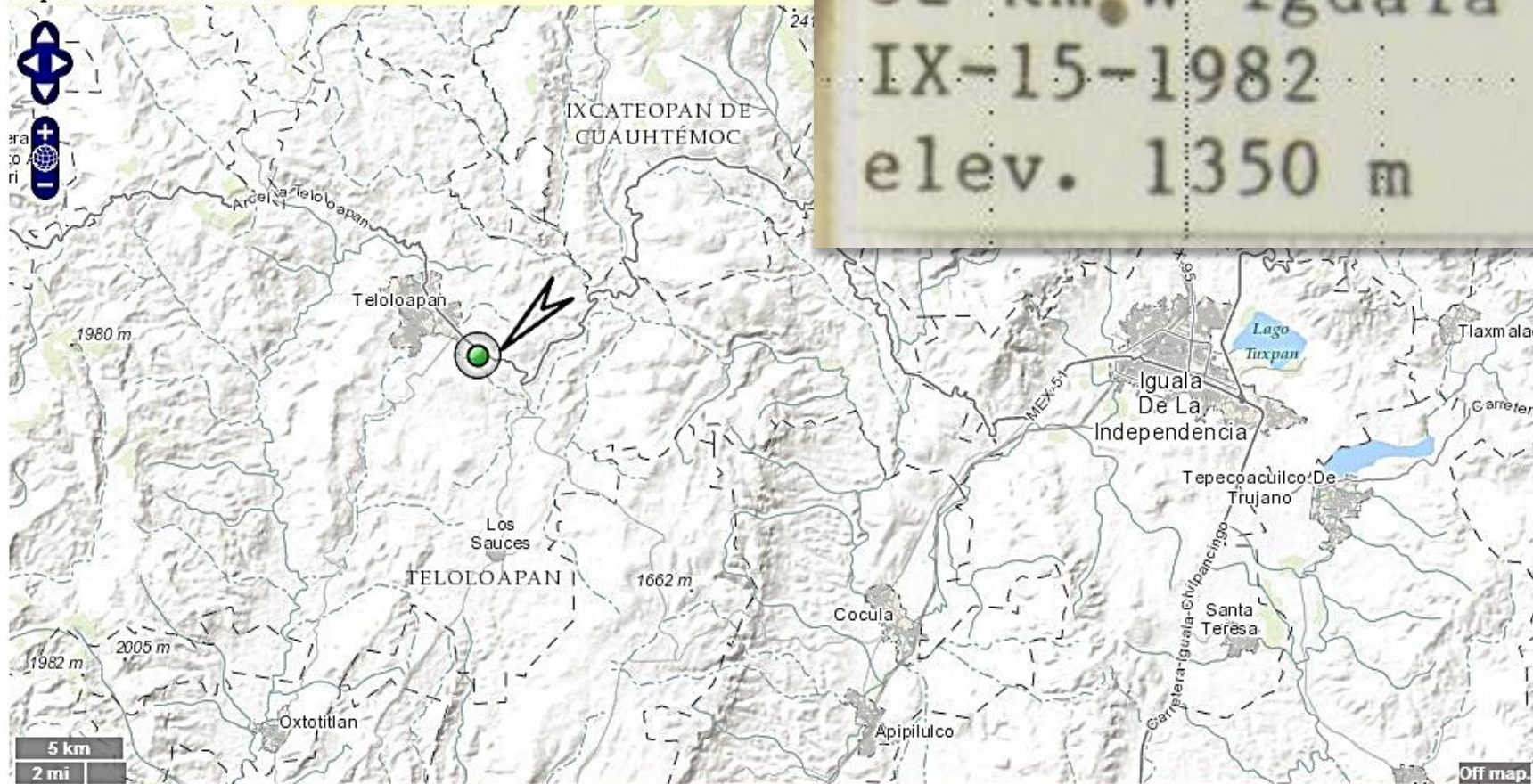
MVZ Guide for Recording Localities in Field Notes

Complete locality data, including the information outlined below, should accompany all collected material and observations.



GEOLocate Web Application

30 possible locations found.



MEX: Guerrero,
 32 km W Iguala
 IX-15-1982
 elev. 1350 m

Workbench **30 possible locations found**

Georeference | Options | Draw polygon Place marker Measure

Locality String: Guerrero, 32 km W Iguala elevation 1350m

Country: MEXICO latitude: 18.349039 longitude: -99.843772 uncertainty: 1056 m error polygon

State: 18.349039 -99.843772 1056 Unavailable

iDigBio GWG

Train the Trainers I and II

- 5 Day Training
- Pay-it-forward
- Community Resource

10:00	Workshop Overview , Introduction to Georeferencing, and Thinking like a Trainer	David Bloom
10:20	Selected Survey Results , Train-the-Trainers Second Georeferencing Pre-workshop Survey Report and Update from TTT1 Participants Pay-It-Forward Efforts	Shari Ellis
10:35	Break	
11:00	Georeferencing Introduction: Collaboration to Automation	Dave Bloom
11:30	Geographical Concepts	Nelson Rios
11:50	Point-Radius Method and Best Practices	Jessica Utrup
12:10	Darwin Core Standard, Key Terminology iDigBio Recommended fields	Dave Bloom
12:30	Lunch (Provided)	
13:30	Georeferencing Quick Reference Guide, Locality Types, and Georeferencing Template	Una Farrell
14:40	Georeferencing Calculator, Calculator Manual	Dave Bloom
15:30	Break	
16:00	Georeferencing Calculator Example and Exercises , MaNIS/HerpNet /ORNIS Georeferencing Guidelines	Dave Bloom
17:00	Day in Review and Considerations for Trainers-to-be Trivia Question of the Day A.M. Recording: Start-10:30 A.M. Recording: 10:40-12:30	David Bloom Debbie Paul



georeferencing.org

HOME TOOLS GAZETTEERS DATA SOURCES TRAINING

Georeferencing

Mapping Resource Hub

Home

Welcome to Georeferencing.org!

Here you will find a collection of resources pertaining to the process of georeferencing.

Tools

Gazetteers

Data Sources

Training

Georeferencing Issue

- **Reintegration**

- Biodiversity Informatics Skills
- Database issues

biggest challenge?



EXPORT

IMPORT

GEOLocate 

Four* Ways to Georeference

1. Georeference by CSV
2. Georeference Me!
3. GEOLocate Collaborative Georeferencing
4. one-at-a-time (not recommended)



EXPORT

IMPORT

GEOLocate



Four* Ways to Georeference

Workflow Overview

- Where is your **locality** data? Collate it. Export it.
- Into a CSV file
 - file-naming strategy, save files
 - Upload to GEOLocate and Georeference by CSV
 - or from CSV, “Call GEOLocate” using “Georeference Me!”
 - or upload CSV to GEOLocate **Collaborative georeferencing**
- Use GEOLocate to **visualize work before import**
- Use CSV-file Georeferences to populate your database
- or copy-and-paste georeferences directly into database
- or GEOLocate is embedded in your software

Meaningful datasets make georeferencing:

* faster

* less error prone

* *more fun!*

Project Management & Workflow Hints

*Innovating
for Cost, Speed,
Confidence*

- familiarity with the localities is key
- language
- organismal group
- land signatures
- hint: advice / policy on how long to spend on 1 locality
- expert or novice?

- 1 in 10 dups (VertNet experience from ORNIS)
 - could it be higher as we have more locality data?
- Could searching OCR output help? (yes)

Obrigada!

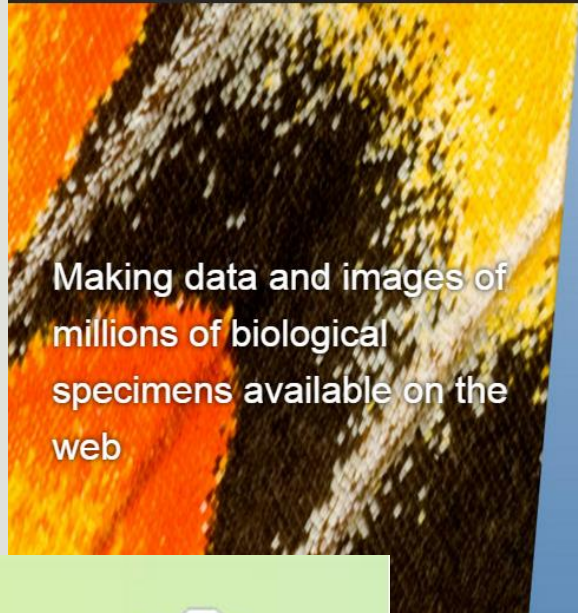
Links to Cool Stuff

- iDigBio GWG Listserv https://www.idigbio.org/wiki/index.php/IDigBio_Listservs
- Got GEOREFERENCING Questions?
 - idigbio.org > register
 - Resources > Forums > **Georeferencing Working Group (GWG)**
- iDigBio GWG Wiki <http://tinyurl.com/idbgeowg>
 - ttt1 and ttt2 resource pages
 - power points, videos, handouts, how-to's, trainers
 - sample at <http://tinyurl.com/idbttt2>
- GEOREFERENCING Trainers
 - <https://www.idigbio.org/wiki/index.php/TTT1TTT2>
- web resources <https://www.idigbio.org/wiki/index.php/Georeferencing>
- GWG help with planning a georeferencing workshop
- videos (vimeo and idigbio)
- Geo-rectify an old (online) map
 - <http://www.georeferencer.org/>



Enrichment

- Citizen Science
 - Tie specimens to observations
 - Field notebooks*
 - Post public/citizen science processing
 - Volunteers get credit
 - Data discovery
 - dupes, grey literature, more complete records, annotations of many kinds, georeferenced records
 - Data sharing / publication
 - Reveals data issues that can now be fixed
 - Managing data enrichment
 - Data citation
 - Data re-use
- Data Quality
 - Data Integrity
 - Data Enhancement

[My account](#) [Log out](#)

Making data and images of millions of biological specimens available on the web

24,705,794

Specimen Records

4,046,837

Media Records

357

Recordsets



Why digitization matters

More about what we do and why



Digitization

Learn, share and develop best practices



Sharing Collections

Documentation on data ingestion



Working Groups

Join in, contribute, be part of the community



Proposals

New tool and workshop ideas



Citizen Scientists

How can you help biological collections?

Obrigada SiBBR! Find out more at ...

<https://www.idigbio.org/content/workflow-modules-and-task-lists>

https://www.idigbio.org/wiki/index.php/Georeferencing_Working_Group



www.idigbio.org



facebook.com/iDigBio



twitter.com/iDigBio



vimeo.com/idigbio



idigbio.org/rss-feed.xml



<webcal://www.idigbio.org/events-calendar/export.ics>



dpaul@fsu.edu
[@idbdeb](https://twitter.com/idbdeb)

GEOLocate: Community Edition

Collaborative Georeferencing

Zoothera naevia
Lat: -22.52 Long: 13.08



Welcome debpaul, user since 1/29/2012. | [LOGOUT](#)

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- [Portal Tutorial](#)

Data Sources

Members

Settings

Click on an item's header to expand/collapse its content.

sort by ▲

✓ community-wide

✓ montana

date added: Thursday, August 15, 2013

Secondary name:

montana

Path:

drive

Type:

csv

Owner:

nelson

Number of records:

250

Status:

cached

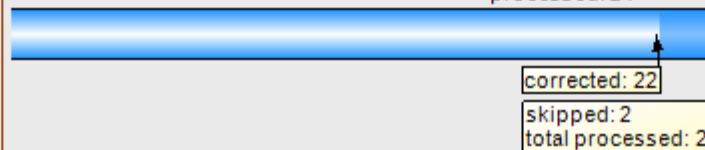
Task:

Records statistics:

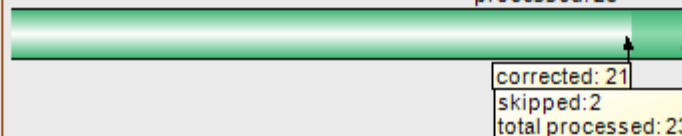
Community specimens
processed: 24

[VIEW RECORDS](#)

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Community Localities
processed: 23



GEOLocate: Community Edition

Collaborative Georeferencing

Zoothera naevia
Lat: -22.52 Long: 13.08



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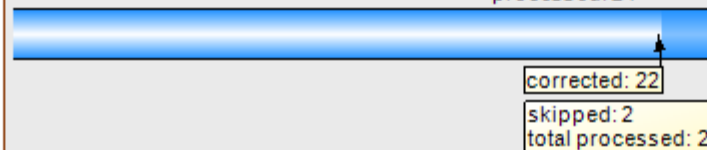
Task:

Records statistics:

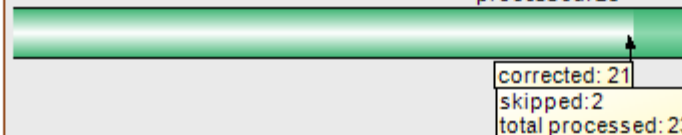
Community specimens
processed: 24

[VIEW RECORDS](#)

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Community Localities
processed: 23





Advanced

- via AdobeConnect

Advanced GEOLocate Course - Services, Integration, End-to-End

Workflows

On Friday, September 6th, Nelson Rios from Tulane University and the FishNet2 project, presented a lecture covering advanced use of **GEOLocate** software and services available through the web-based Application Programming Interface (API). Using Adobe Connect meeting software, over 30 people came to find out what they can do with GEOLocate tools and services beyond the online public user-interface. The **recorded**