Agenda

- Who we are and why are we meeting

- Introductions
  - Quick introductions

- Field Priorities/Skeletal Data (Results from 08/02/2023)
  - Encouraging herbaria to focus on entering basic information that allows us to identify duplicates so that we can share parsed and geospatial information.
    - Collector Name, Collector Number, Collector Date, Sci Name, State & County

- Fields We plan to discuss
  - Collector Number (Results from 08/02/2023) , Associated Collector(s) (Results from 08/02/2023)
  - County (Results from 08/02/2023)
  - Security (Results from 08/02/2023)
  - Verbatim Coordinates, Verbatim Elevation (Results from 08/02/2023)
  - Location Remarks (Results from 08/02/2023)
  - Georeferenced By, Georeference Sources, Georeference Protocol
  - Habitat, Substrate, Associated Taxa
  - Notes (Occurrence Remarks)
  - Phenology (Results from 08/02/2023)
  - Data Gen (Results from 08/02/2023)
  - Collector/Observer Name (Results from 08/02/2023)
  - Identified By, Date Identified

- Future Meeting Topics
  - Discussing standards for remaining fields
  - Coordinating data cleaning

- Workshops
  - Database Entry Workshops-Hosted By USCH/SCDNR (Avery Browning)
  - Georeferencing Workshops-Hosted By SCDNR (Csilla Czakó)
  - Data Cleaning Workshops (and student project ideas!) - Hosted by USCH/SCDNR (Csilla Czakó)

SC and Neighboring Herbaria Meeting

- Csilla Czakó (SCDNR NHT Botany and Plant Conservation Group Data Manager/Herbarium Liaison): czakoc@dnr.sc.gov

- Avery Browning (USCH Assistant Collections Manager/Volunteer Manager): averyob@mailbox.sc.edu

- Charlie Harmon (USCH Collections Manager): harmona3@mailbox.sc.edu

- Herrick Brown (USCH Curator): hbrown@mailbox.sc.edu

- Keith Bradley (SCDNR NHT Botany and Plant Conservation Group Lead/SCDNR State Botanist): bradleyk@dnr.sc.gov

SCDNR NHT Botany & Plant Conservation Program

Keith Bradley
Team Lead/State Botanist
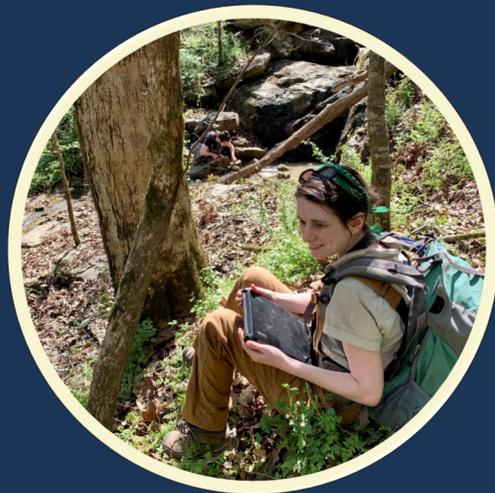
Samantha Tessel
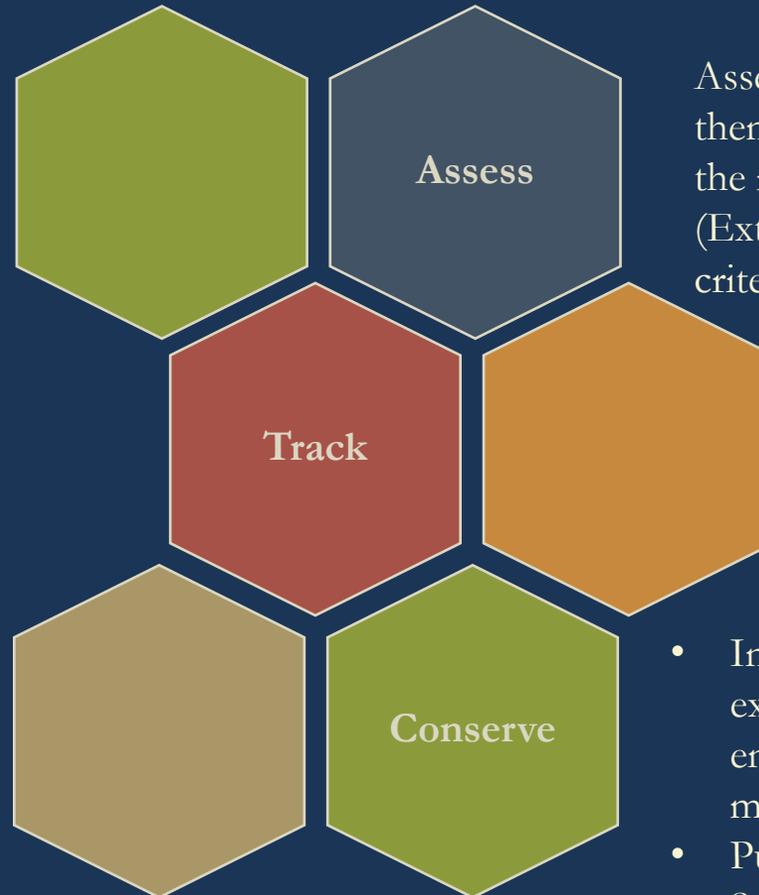Upstate Botanist

Eric Ungberg
Lowcountry Botanist

Csilla Czako
Team Data Manager/Geospatial Analyst

SCDNR Natural Heritage Trust Botany & Plant Conservation Program Goals

Assess

Assess all of South Carolina's Native Flora and give them conservation rankings from S1 to S5 where S5 is the most common (think loblolly pine), SX (Extirpated), or SH (Historical) following NatureServe criteria.

- Track all S1, S2 and S3 species in the state and other species of conservation interest.
- Assess herbarium specimens, iNaturalist, and published materials for rare and endangered species data.
- Update legacy Natural Heritage Trust data.

Track

Conserve

- Inventory all Heritage Preserves for all native and exotic plant species and to keep track of rare and endangered plants to guide conservation and management.
- Purchase more Heritage Preserve Land, using Tracked Species data to guide acquisition.

SCDNR Natural Heritage Trust Botany & Plant Conservation Program Goals
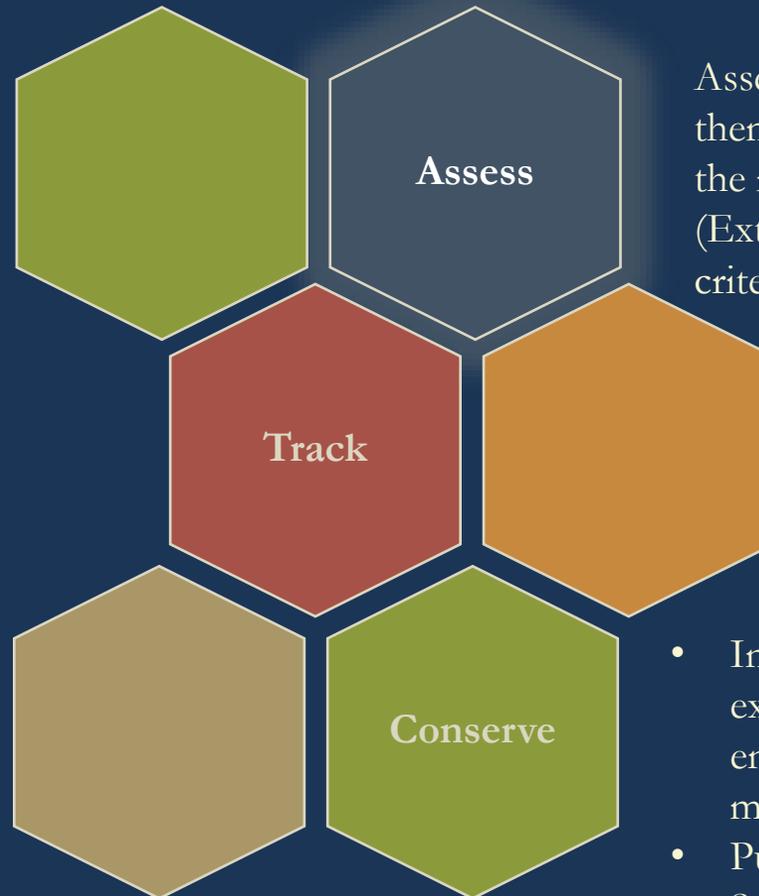
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SCDNR Natural Heritage Trust Botany & Plant Conservation Program Goals
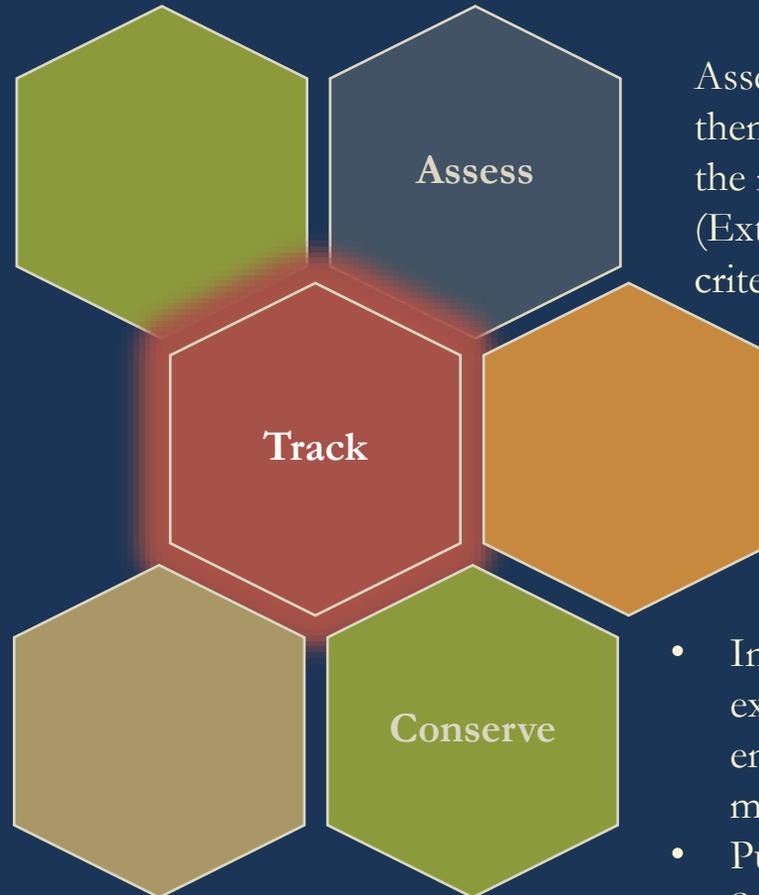
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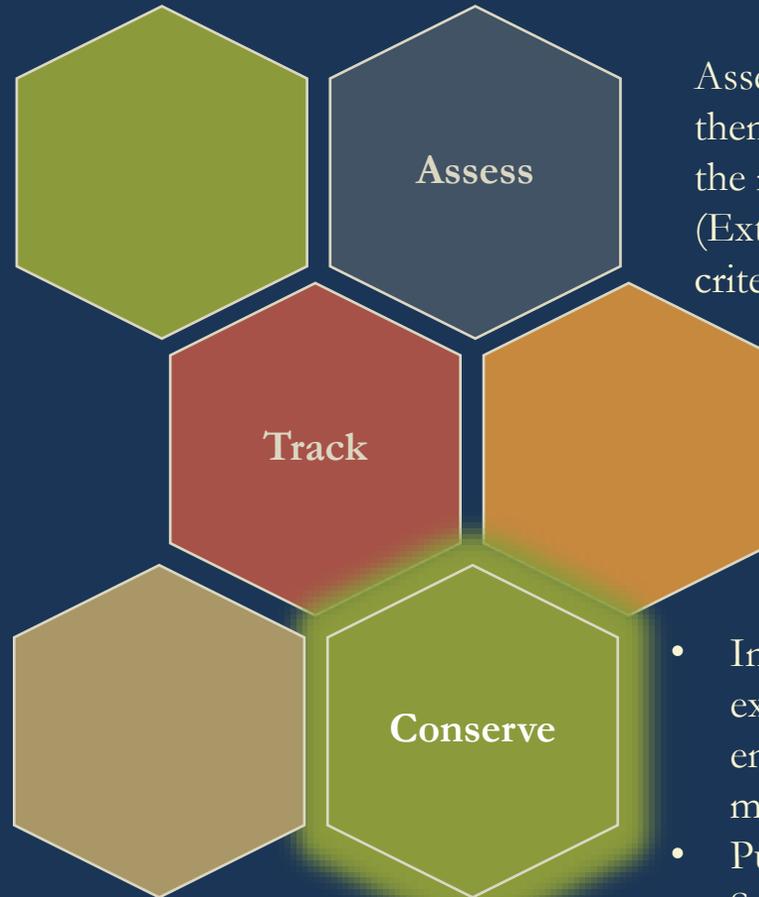
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Assess

Track

Conserve

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Brief Intro to USCH

- The A.C. Moore Herbarium (USCH) at the University of South Carolina is located in Columbia, South Carolina.

- Our collections total just over 130,000 specimens making USCH the largest herbarium in SC!

Curator: **Dr. Herrick Brown**

Assistant Collections Manager/Volunteer Manager: **Avery Browning**

Collections Manager: **Charlie Harmon**

SCDNR NHT Botany & Plant Conservation Group Liaison/GIS Specialist: **Csilla Czakó**

Additional Staff and Affiliates not Pictured: Dr. Mihaly Czakó (Resident Xylologist); Dr. John B. Nelson (Curator Emeritus); Maura C. Flannery (Research Affiliate/Professor Emerita); Keith Bradley (Research Affiliate/SCDNR State Botanist); Samantha Tessel (Research Affiliate/SCDNR Upstate Botanist; Eric Ungberg (Research Affiliate/SCDNR Low Country Botanist)

Introduction

- This meeting format uses descriptions of USCH/SCDNR data standards and suggestions, as well as a time between each for discussion.

- The field names in this presentation are referenced as they appear SERNEC.

- You will hear us recommend writing things into fields using brackets. The brackets are meant to indicate data added post-mounting.

Field Priorities/Skeletal Data

The fields USCH uses for skeletal records include:

- Catalog Number

- Additional Identifier Value (our stamped accession number)

- Collector Name and Number

- Collection Date

- Latest Determination

- Country, State, and County

- Language

- Label Project

We suggest at least the **bare minimum**:

- Catalog Number

- Additional Identifier Value (our stamped accession number)

- Collector Name and Number

- Collection Date

- Latest Determination

- Country, State, and County

Field Priorities/Skeletal Data

> What do you think of the fields chosen for prioritization? Are there fields you disagree with?

Field Priorities/Skeletal Data (08/02/2023)

- Collector Number vs. Catalog Number vs. Additional Identifier Value vs. OCCID

- **Collector Number**: the unique identifier given by the collector to their specimen

- **Catalog Number**: the number associated with the image, SERNEC's primary unique identifier provided by the herbarium

- **Additional Identifier Value**: formerly known as the Catalog Number, this usually corresponds to a herbarium accession number

- **OCCID** is the unique identifier generated by SERNEC for the digital record

Field Priorities/Skeletal Data (08/02/2023)

Collector Number	Catalog Number/Barcode	Additional Identifier Value/Other Catalog Number/Stamped Number	OCCID
↓	↓	↓	↓
Collection Event	Most times correlates to image but is the primary unique identifier for the specimen	Herbarium Accession Number	Digital Record

Field Priorities/Skeletal Data (08/02/2023)
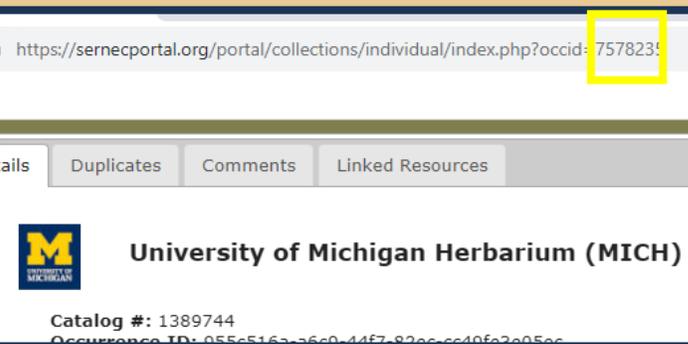

FYI-the OCCID is in the record web link

SCDNR pulls OCCID, Catalog Number, Other Catalog Number and Collector Number.

OCCID

Field Priorities/Skeletal Data (08/02/2023)

Field Priorities/Skeletal Data

The fields USCH uses for skeletal records include:

- Catalog Number
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We suggest at least the **bare minimum**:

- Catalog Number
- Additional Identifier Value (our stamped accession number)
- Collector Name and Number
- Collection Date
- Latest Determination
- Country, State, and County

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Collector / Observer Number

Loran C. Anderson No. (13,076)

= | Collector / Observer | Number |
|---|---|
| Anderson, Loran C. | 13076 |

- The collector number goes verbatim into the Number field, **but** commas are left out.

- When labels do not include a collection number, the Number field is entered as "s.n."

Coll. Mrs. Edna Mixor **Date** 19 Nov 196 (No.)
Det W. T. Batson

= | Number |
|---|
| s.n. |

- Some collectors use more unique identifiers, such as adding letters, dashes, periods, etc. These are also included verbatim.

Uotila, Pertti (43543a)

= | Collector / Observer | Number |
|---|---|
| Uotila, Pertti | 43543a |

- If a collector number starts with a 0, then it should be entered verbatim (i.e., Pittman).

A.B. Pittman #06229803

= | Collector / Observer | Number |
|---|---|
| Pittman, A.B. | 06229803 |

Collector/Observer Number

For records with no collector number should we put "s.n."? Should we exclude commas in long numbers?

Collector / Observer Number (08/02/2023)

- "s.n." preferred for no collector number

Collector / Observer Number (08/02/2023)

Collector/Observer Number

For records with no collector number should we put "s.n."? Should we exclude commas in long numbers?

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Associated Collector(s)

- Last Name, First Name Middle Initial

Ex. John B. Nelson with Keith A. Bradley

John B. Nelson 36141
with Keith Bradley

- Entered in the same format as Collector/Observer name.
    - Ex. Keith A. Bradley becomes **Bradley, Keith A.**

Collector / Observer ?
Nelson, John B.

Associated Collectors ?
Bradley, Keith A.

- If there are multiple associated collectors, each name is separated with a semicolon (;).
    - Ex. R.K. Godfrey no. 82847 with Angus Gholson & Richard Carter

Collector / Observer ?
Godfrey, R.K.

Associated Collectors ?
Cholson, Angus; Carter, Richard

Associated Collector(s)

Do you agree with the name formatting and separating multiple associated collectors with a semicolon?

Associated Collector(s) (08/02/2023)

- Associated collector(s) separated by a semicolon is preferred

Associated Collector(s) (08/02/2023)

Associated Collector(s)

Do you agree with the name formatting and separating multiple associated collectors with a semicolon?

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Notes about Location Fields

- USCH distinguishes between first pass of data and data that is then perfected by a georeferencing specialist or georeferencing student.

- A lot of these fields we are referencing bare minimum/first pass of data.

County

- Don't add the word "County", "Co.", "CO" or any other additional words.

- Make sure the county is spelled correctly.

- If county is misspelled on the label, or the county does not match the described location, enter the verbatim county and corresponding corrections, along with the data processor's initials and the processing date in brackets at the end of Location Remarks.

County

- If the county is misspelled, enter it verbatim and corrected at the end of Location Remarks in brackets and put the data processor's initials and the date.
    - FORMAT: [Verbatim County: *county on label*. Correct Spelling: *corrected spelling. Initials YYYY-MM-DD*]
    - Abeville instead of Abbeville:"[Verbatim County: Abeville. Correct Spelling: Abbeville. CC 2023-06-21]"
- If the county does not match the state, enter the verbatim.
    - FORMAT: [Verbatim County: *county on label*. Corrected County: *corrected county. Initials YYYY-MM-DD*]
    - Bibb County, SC BUT the location remarks make sense for South Carolina: [Verbatim County: Bibb. Corrected County: Aiken County, SC. CC 2022-02-15]

County

- For historical counties (yes, they did change!) we will have students ask for guidance until they have been trained

- The present-day county will be added

- If the locality and historic information is so vague it covers multiple counties, that information will go into the Location Remarks

- Potentially can add the current day counties it covers, separated by a semicolon

County

For historical records should USCH add all counties the area covers separated by semicolons into the County field?

County (08/02/2023)

- If location spans multiple counties put **all** relevant counties and separate them by a semicolon (suggested that this is for advanced students)

- This is an indexed field so after adding the semicolon the picklist will no longer work! Data processors need to spell check themselves.

- *Suggested: first by* **amount in county**, *and then* **alphabetically**

County (08/02/2023)

Security

- Herrick Brown created a Rare species of South Carolina Checklist that SCDNR curates so all species in the state of SC automatically get security

- Other reason would be private residence

- In this case we write "Private Residence" for Security Reasons

Security

Do you all agree with adding security for private residences? What other scenarios are relevant?

Security (08/02/2023)

- Location Specific Security: needs to be **batch edited by Symbiota using OCCID**

- Should be discussed with Symbiota first

- In NC, they want everything off of the Blue Ridge Parkway to be protected, some TNC (The Nature Conservancy) and Natural Park Services

- Rare species hot spots and associated occurrences of rare species may also be protected

Security (08/02/2023)

Verbatim Coordinates

- **Main Goals**
  - To determine if the coordinates were provided by the collector or georeferenced by someone else
  - Make sure the coordinates carry over to decimal lat and long

- **First Pass**
  - Data processor writes the coordinates as they appear into Verbatim Coordinates
  - If coordinates do not carry over to the decimal lat and long fields, the data processor needs to manually copy them into their respective fields

- **Georeferencing Specialist or Georeferencing Student**
  - Change the format of the verbatim coordinates to match SERNEC standards
  - Check coordinates to make sure they are properly converted and make sense
  - Copy the coordinates as they appear on the label into the Location Remarks. *(Even if they are wrong or formatted improperly)*.
  - The verbatim coordinates should be tagged in the location remarks with: "Verbatim Coordinates:"
  - Fill out georeferenced by, georeferenced protocol, and georeferenced verification

Verbatim Coordinates

Do you agree with having the students copy the coordinates as is into the Verbatim Coordinates field and making sure they end up in decimal lat and long?

Verbatim Coordinates (08/02/2023)

- *No comments*

Verbatim Elevation

- **Main Goals**
  - to determine if the elevation was provided by the collector or georeferenced after the collection
  - make sure the elevation carries over to min and max elevation

- **First Pass**
  - Students write the elevation or elevation range and corresponding unit as they appear into Verbatim Elevation
  - If both do not carry, make sure they get into min and max elevation

- **Georeferencing Specialist or Georeferencing Student**
  - Double check the elevation and make comments in Location Remarks
  - Run zonal statistics on the polygon OR take verbatim coordinates and turn them into a polygon using the coordinates and the buffer using an SCDNR provided Digital Elevation Model(DEM)

Verbatim Elevation

Do you agree with having the students copy the elevation as is into the Verbatim Coordinates field and making sure they end up min and max elevation?

Verbatim Elevation (08/02/2023)

- Verbatim elevation does not have a preferred unit, but the minimum and maximum elevation is meant to be in **meters**.

- *Please note that when records were imported from Specify, records that are edited post-import may have errors when trying to save because the elevation was forced into the maximum elevation field – however **SERNEC only allows for a minimum elevation when there is only one number and not a range.**

Elevation in Meters ?

sernecportal.org says

Maximun elevation field contains a value yet minumum does not. If elevation consists of a single value rather than a range, enter the value in the minimun field.

OK

Verbatim Elevation (08/02/2023)

Georeference Remarks, Georeferenced By, Georeference Sources, Georeference Protocol

- Georeference Remarks
  - How the record was georeferenced
  - There is a character limit so it should be succinct.
  - Full or additional details can go into Location Remarks

- Georeferenced By
  - Full Name (Last Name, First Name MI)

- Georeference Sources
  - Follow Darwin Core Standards

- Georeference Protocol
  - USCH limits the options to the following:
    - SCDNR Georeferencing Protocol*
    - Carried over from Duplicate
    - Field Survey of Site**
    - Georeferenced in Field

Comments	Recommended best practice is to separate the values in a list with space vertical bar space (	). This term has an equivalent in the dwciri: namespace that allows only an IRI as a value, whereas this term allows for any string literal value.

*SCDNR Georeferencing Protocol refers to a set of guidelines written and is being perfected by Csilla Czakó that SCDNR and USCH processors follow when georeferencing
**Field Survey of Site refers specifically to well known botanical hotspots. In theses cases, SCDNR or affiliated botanist will go out and map precise location information for all records associated with the area.

Georeference Remarks, Georeferenced By, Georeference Sources, Georeference Protocol

Comments? Questions?

Georeference Remarks, Georeferenced By, Georeference Sources, Georeference Protocol (08/02/2023)

- *No comments*

Location Remarks

- What goes into this field:
  - Anything and everything to do with location *even if it is repeated in habitat*
  - Write out abbreviations in brackets (i.e. N -> N [north], cr -> cr [creek])
  - Additional comments in brackets related to coordinates, elevation, clarification, updated names, and georeferencing remarks that don't fit into georeferencing remarks because of the character limit
  - Everything in location remarks doesn't necessarily end up in locality

Location Remarks Example

Label Information:

4.5 mi N of jct FSRD 715 and 715 A. Deep drainage on wooded slope. Oak-hickory forest.

Location Remarks: 4.5 mi [miles] N [north] of jct [junction] FSRD [forest service road] 715 and 715 A. Deep drainage on wooded slope.

Habitat: Deep drainage on wooded slope. Oak-hickory forest.

Location Remarks

Do you agree that any and all information related to location and associated remarks about geospatial information and additional georeferencing remarks should go in this field?

Location Remarks (08/02/2023)

- Seems like we need a specific meeting for location remarks and for collectors writing labels. In upcoming meetings, we can discuss this.

- On adding **Location Remarks** when there **are** given coordinates:
  - Useful when browsing SERNEC vs. dropping data into GIS software

- Air miles vs. Road miles
  - Collectors writing labels and Georeferencer adding location remarks: specify which you are using and put both units (miles and meters)
  - Miles are better for referencing when driving, meters are more scientific
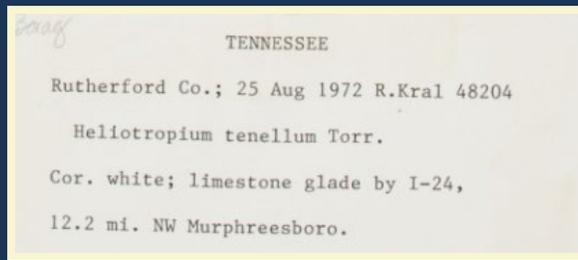
Location Remarks (08/02/2023)

Habitat

TENNESSEE

Rutherford Co.; 25 Aug 1972 R.Kral 48204

Heliotropium tenellum Torr.

Cor. white; limestone glade by I-24,

12.2 mi. NW Murphreesboro.

Habitat ?
Limestone glade.

HERBARIUM
NORTHEAST LOUISIANA UNIVERSITY, MONROE

Flora of LOUISIANA   Parish: CATAHOULA

HELIOTROPIUM PROCUMBENS P. Mill.

Disturbed area along west bank of Bayou Louis
on south side of La. 8 about three miles east
of Harrisonburg, Sec. 8, T9N, R7E.

Collector: R. Dale Thomas

No.: 114,603   Date: 21 November 1989
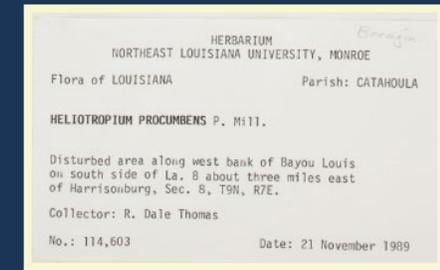
Habitat ?
Disturbed area along west bank of Bayou Luis.

- This field is written as a sentence, with capitalization and a period at the end.

- General habitat description, but *also* includes associated taxa (scientific names and common names) in this field as well as the distribution and substrate.

- Some labels, such as algae, may have the air temperature, water temperature, and salinity. These measurements would go in the Habitat field as well.

Habitat

Do you agree with also including the distribution, associated taxa, and substrate in this field?
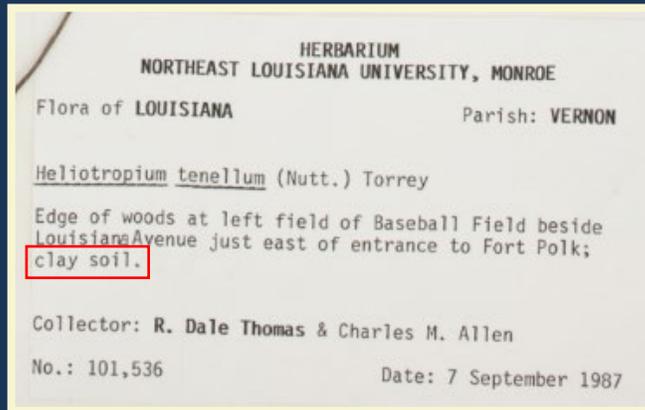
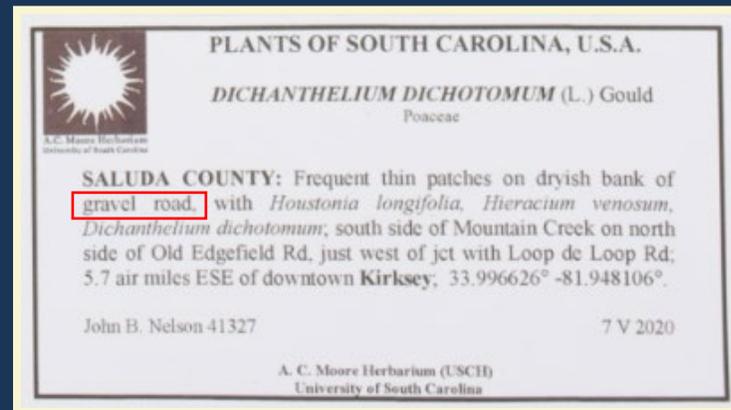Should habitat be written in full sentences?

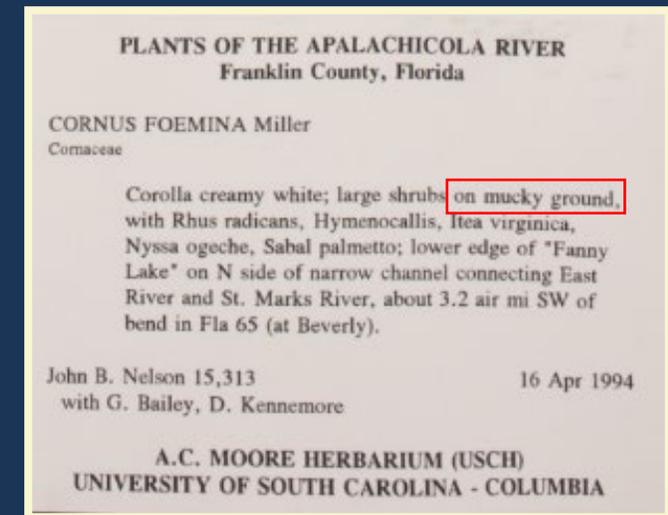# Habitat (08/02/2023)

- *No comments*

Substrate

- We include the full description of the substrate, such as: Iredell soil, moist sand, basic soil, acidic, nutrient-rich, poor, etc.

- This field is also written as a sentence, with capitalization and a period at the end.

Substrate

Should the Substrate field be limited to the material/surface only? Should substrate be written in full sentences?
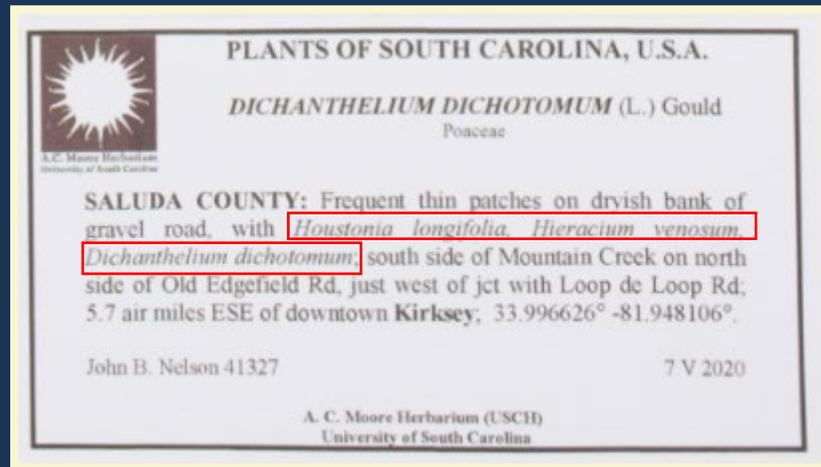
Substrate (08/02/2023)

- *No comments*

Associated Taxa Formatting

- Scientific names only

- Only those from the dropdown list

- Do not write "sp." or "spp."

- Do not convert common names into scientific names from habitat and add them to associated taxa

- No period at the end

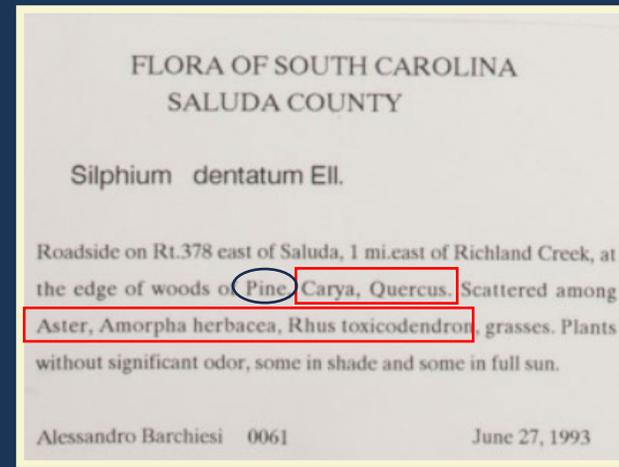- Write out abbreviated Genus names (ex. Aster dumosus, A. pilosus = Aster dumosus, Aster pilosus).

Associated Taxa Examples

PLANTS OF SOUTH CAROLINA, U.S.A.

DICHANTHELIUM DICHOTOMUM (L.) Gould
Poaceae

SALUDA COUNTY: Frequent thin patches on drvish bank of gravel road, with *Houstonia longifolia, Hieracium venosum, Dichanthelium dichotomum*; south side of Mountain Creek on north side of Old Edgefield Rd, just west of jct with Loop de Loop Rd; 5.7 air miles ESE of downtown **Kirksey**; 33.996626° -81.948106°.

John B. Nelson 41327   7 V 2020

A. C. Moore Herbarium (USCH)
University of South Carolina

Associated Taxa ?
Houstonia longifolia, Hieracium venosum, Dichanthelium dichotomum

FLORA OF SOUTH CAROLINA
SALUDA COUNTY

Silphium   dentatum Ell.

Roadside on Rt.378 east of Saluda, 1 mi.east of Richland Creek, at the edge of woods of Pine Carya, Quercus. Scattered among Aster, Amorpha herbacea, Rhus toxicodendron, grasses. Plants without significant odor, some in shade and some in full sun.

Alessandro Barchiesi   0061   June 27, 1993

Associated Taxa ?
Carya, Quercus, Aster, Amorpha herbacea, Rhus toxicodendron

*Ignore "Pine" for the Associated Taxa field because Pine is a common name, not scientific.

Associated Taxa

Do you agree with formatting associated taxa for a clean match up to SERNEC Taxon ID? Do you agree with leaving out common names from the Associated Taxa field?

Associated Taxa (08/02/2023)

- *No comments*

Notes (Occurrence Remarks)

- In this field, USCH also includes:
    - When a two or more specimens are sharing a sheet – written as: "Shares sheet with USCH Accession # _____."
    - The sheet number when there are multiple related sheet – i.e., "Sheet # of #."
    - Statements from the label that describe the collection permits as well as individuals that monitored or supervised the collection
        - e.g., "Collection with permission and under supervision of Groton Plantation Staff," "Collection authorized by Collection authorized by FMNF permit #2900, cy 2021 and 2022."
    - Remarks about support given to the collector or organization
        - e.g., "Supported by the Janice C. Swab Botanical Research Award."
    - When specimens are included in the South Carolina Heritage Trust Program – entered as "South Carolina Heritage Trust Program."

Notes (Occurrence Remarks)

What additional data should go into this field? What should <u>not</u> go into this field?

Notes/Occurrence Remarks (08/02/2023)

- Include **as much information as possible**. Anything that doesn't neatly fit anywhere else should be going here.

Notes/Occurrence Remarks (08/02/2023)

Phenology

- USCH currently leaves this field blank unless the data processor is certain of the plant's phenology or if it was specified by the collector in their description.

- Darwin Core:

Phenology (Reproductive Condition): The reproductive stage the specimen is in. Typically used for plant and fungal collections.

Ex: flower, fruit, sterile

See Darwin Core's reproductiveCondition

reproductiveCondition	
Identifier	http://rs.tdwg.org/dwc/terms/reproductiveCondition
Definition	The reproductive condition of the biological individual(s) represented in the dwc:Occurrence.
Comments	Recommended best practice is to use a controlled vocabulary. This term has an equivalent in the dwciri: namespace that allows only an IRI as a value, whereas this term allows for any string literal value.
Examples	non-reproductive pregnant in bloom fruit-bearing

*USCH mainly uses "flowering," "fruiting," and "reproductive."
*More than one descriptor is also acceptable

Phenology

When should this field be used? If there is no data for phenology, should this field be left blank or entered as "No data"?

Phenology (08/02/2023)

- Comments about importance of this field due to notable events – such as flowering out of season go into Description.

- Option was discussed for using "Unknown" instead of leaving the field blank or entering "no data" as to avoid implying that information was left out by the data processor.

Phenology (08/02/2023)

Traits Tab in SERNEC options.

https://www.youtube.com/watch?v=0FECOytpTiY
Starts at around 5 minutes 25 seconds
"Trait Data in Symbiota Portals"
Explanation on how to use
Occurrence Trait Coding Tools

Phenology (08/02/2023)

Phenology

When should this field be used?
If there is no data for phenology
should this field be left blank or
entered as "No data"?

Return to Agenda

Data Generalizations

- This field is used for additional data about the specimen including:
    - Mounted / Remounted Dates, Ex. Herbaria, Voucher Specimen information, , and Duplicate (aka Dupl. or Dupe) specimen locations.
    - The Label Project **if** the name of the project exceeds the character limit in the Label Project field.

- If more than one of the above apply, the information should be separated by a semicolon (;) when it is entered.

Current standards for additional data that does not have a specified field

Data Generalizations

DNR Specific

Notes (Occurrence Remarks) ?

DNR Specific

Data Generalizations	Add. Specimen Comm.	Add. Occurrence Comm.	Add. Record Comm.
Mounted, Remounted, or Repaired dates	Type of sampling (e.g., destructive)	Any comment that doesn't directly apply to the occurrence	Shares sheet with...
Ex. Herbaria	Any "Examined for..." Label that doesn't correlate to a determination	Collected with permission....	Sheet # of #
Voucher Specimen...	"Specimen used for..." (Making it Grow, Mckissick, classroom, etc.)	Supported by...	
Paper Purchased....		South Carolina Heritage Trust Program	
Dupl. at...			
Label Project (**if** it does not fit into the Label Project field)			

Proposed SERNEC Hierarchy

Data Generalizations - Curation	Notes (Occurrence Remarks) - Misc.	Description – Misc.
1. Ex. Herbaria	1. Shares sheet with...	1. Type of sampling (e.g., destructive)
2. Dupl. at...	2. Sheet _ of _	2. Any "examined for" label that does not correlate to a determination
3. Label Project (**if** it does not fit into the Label Project field)	3. Collected with permission...	3. Specimen used for... (e.g., Making it Grow, Mckissick Museum, classroom demonstrations)
4. Mounted, Remounted, Repaired	4. Supported by...	
5. Voucher Specimen	5. SC Heritage Trust Program	

Return to Agenda

Data Generalizations

What additional data should go into this field? What should <u>not</u> go into this field?

Data Generalizations (08/02/2023)

- Doesn't show up on public view so this is for mainly comments about **curation**.

- **Hierarchy** not fully discussed yet - proposed hierarchy will likely be tweaked

Data Generalizations (08/02/2023)

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Current Protocol: Collector / Observer

Collector: R. Dale Thomas with Scott D. Thomas

No.: 164,462   Date: 20 Nov

Collector / Observer: Thomas, R. Dale   Number: 164462

Associated Collectors: Thomas, Scott D.

- The format USCH uses for this field is Last name, First name, Middle Initial.
  - No spaces are entered between initials
  - If suffixes are included (e.g., George P. Sawyer Jr.) USCH use the format Last name, Suffix, First name, Middle initial

- USCH only lists one person in this field, additional collectors go in the Associated Collectors field.

  Herrick H. K. Brown (coll. & det.)

  Collector / Observer: Brown, Herrick H.K.

- If the label lacks a collector completely, the Collector / Observer is entered as "Unknown"

  Collector / Observer: Unknown   Number: s.n.

  George P. Sawyer Jr.   29 Sept 1863
  class trip with A. E. Radford

  Collector / Observer: Sawyer, Jr., George P.

  Associated Collectors: Radford, A.E.

Collector and Observer

- There will be in the future, a Bionomia ID added to SERNEC

- Data entry staff, students, and volunteers will still need to look up the ID

- Best case scenario-> batch edit

- ETA of Bionomia ID being added to SERNEC is unknown but contact with them suggests it is not soon.

Importance of Verbatim Collector Name

- Provides historical context

- Avoids confusion for inaccurately entered data
  - Ex. Jones, S. (Steven M. Jones OR Samuel B. Jones)
  - By preserving both verbatim and standard name, if there is a misinterpretation of the abbreviated name, it will be easy to find and clean up

- Reflects name change of the collector

- Verbatim collector name is easier for entry level and community science volunteers & data processors to enter
  - No need to look up anything
  - No need to remember formats

Collector/Observer – Name Discrepancies Example

Coll. Cindy Aulbach

Collector / Observer
Aulbach, Cindy

Coll. Cynthia A. Aulbach

Collector / Observer ?
Aulbach, Cynthia A.

Coll. C. Aulbach-Smith

Collector / Observer ?
Aulbach-Smith, C.

Cynthia A. Aulbach-Smith

Collector / Observer ?
Aulbach-Smith, Cynthia A.

Coll. Cynthia Aulbach

Collector / Observer ?
Aulbach, Cynthia

Coll. C. A. Aulbach

Collector / Observer ?
Aulbach, C.A.

Cynthia Aulbach-Smith

Collector / Observer ?
Aulbach-Smith, Cynthia

Synonymy Table for Collectors

Verbatim Name	Standardized Name	SC Collector ID	Bionomia ID
Radford, A.E.	Radford, Albert Ernest	35	Q2831158
Radford, A. E.	Radford, Albert Ernest	35	Q2831158
Radford, Albert E.	Radford, Albert Ernest	35	Q2831158
Radford, Albert Ernest	Radford, Albert Ernest	35	Q2831158

Suggested Compromise

- Entry level students, staff and volunteers write in verbatim precisely as it appears on the label

- Somebody else will come in and batch edit

Where to put Verbatim Name?

- Once the data is standardized, where should we put the verbatim name?

- Options:
    - Add it to Notes/Occurrence Remarks
    - Add it to Data Gen
    - Save it to a spreadsheet with the OCCID of the record so that when SERNEC adds a verbatim collector field, we can batch upload

Shared Collector Spreadsheet

- We created a spreadsheet that has information that *we know* about collector names.

- Full Name:
  - Last Name, First Name Middle Name, Jr./Sr.(suffix)

- Abbreviated Name:
  - Last Name, FI. MI., Suffix

- We invite you all to use this and add to it with additional knowledge

Collector Name

Should we use MLA or APA format for the name?

Collector Name

Should we write the name as it appears on the label in the previously agreed format and then batch update?

Collector Name (08/02/2023)

- **APA** formatting preferred over MLA format
- **Brackets** were suggested but Herrick mentioned it might break the indexing when the collector's name becomes indexed
- **Batch editing** is also a solution
- Overall, there is still division on how this should be dealt with

Collector Name (08/02/2023)

Identified By

- The original determination on the label is the first determination that USCH adds into the Latest Identification field.

- Unless the determiner is specified on the label, USCH assumes that the original identification was made by the collector.

  - In these instances, in the Identification Remarks, USCH also includes: "Original det. on label. Presumed to be by the collector."

    Identification Remarks: ?
    Original det. on label. Presumed to be by collector.

- If the determiner *is* identified on the label, USCH *still* includes "Original det. on label." in the Identification Remarks.

    Identification Remarks: ?
    Original det. on label.

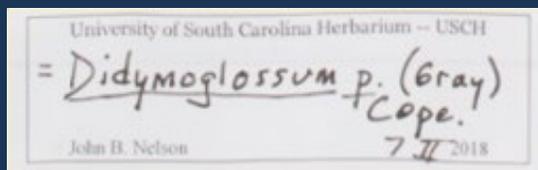# Identified By

Should we match the collector name format?

Identified By (08/02/2023)

- Not yet discussed due to time constraints

Date Identified

- If no date is included for when the identification was made, USCH writes "s.d." into the Date field.

  Date Identified ? s.d.

- If a date is provided, USCH follows the same format as used for the collection date, i.e., YEAR-MONTH-DAY

  - The same standards also apply if the provided date is incomplete, such as May 2009 – which is then written as 2009-05-00, with zeros as place holders for missing information.

University of South Carolina Herbarium -- USCH

= Didymoglossum p. (Gray) Cope.

John B. Nelson   7 II 2018

Scientific Name ?   Didymoglossum petersii   Author ?
Identification Qualifier ?   Family ? Hymenophyllaceae
Identified By ? Nelson, John B.   Date Identified ? 2018-02-07

Date Identified

Do you agree with putting "s.d." for no date and YYYY-MM-DD for date identified?

Date Identified (08/02/2023)

- Not yet discussed due to time constraints

Future Meeting Topics

- Discussing standards for additional data fields
- Coordinating data cleaning

Workshops

1. Database Entry Workshops – Hosted by USCH/SCDNR

2. Georeferencing Workshops – Hosted by SCDNR (Csilla Czakó)

3. Data Cleaning Workshops (and student project ideas!) - Hosted by USCH/SCDNR

*These will be recorded and shared for future reference!

Workshops (08/02/2023)

- *No comments*

THANK YOU!