

# South Carolina Herbaria Data Standards Workshop

By: SCDNR NHT Botany & Plant Conservation Program (Czakó,  
Csilla) and University of South Carolina Herbarium (Browning,  
Avery)



# Forward

This resource was written and compiled by Csilla Czakó from the SCDNR NHT Botany and Plant Conservation Program, Avery Browning from the A.C. Moore Herbarium at the University of South Carolina along with contributions from A.C. Moore Herbarium at the University of South Carolina Staff and Affiliates including but not limited to Collections Manager Charlie Harmon, Curator Dr. Herrick Brown, Research Affiliate Maura C. Flannery, Resident Xylologist Dr. Mihaly Czakó, Curator Emeritus Dr. John B. Nelson, State Botanist and Team Lead of the SCDNR NHT Botany and Plant Conservation Program Keith Bradley. Carol Ann McCormick, the wonderful Curatrix of UNC Herbarium provided much needed insight on Collector Name formatting. Thank you to all the All-SC Herbaria Meeting participants (SC, NC, and GA herbarium curators and staff) who contributed their thoughts and wealth of experience. Thank you to Katie Pearson and the Symbiota Team for patiently answering all our questions. All screenshots and images were taken from the Symbiota SERNEC portal. Symbiota Data Fields (accessed via Symbiota Docs) and The Darwin Core Quick Reference Guide were frequently used in the making of this document.

Given the number of people who worked so hard to bring this project together, when using any or all contents of this document, please reference it as from “South Carolina Herbaria Data Entry Standards”.



# SCDNR NHT Botany & Plant Conservation Program



Keith Bradley  
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Analyst

# SCDNR Natural Heritage Trust Botany & Plant Conservation Program Goals

- 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.



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.

- 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.



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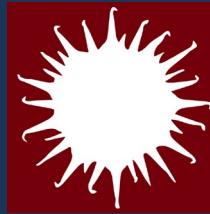


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# Brief Intro to USCH



- 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 Xylogist); 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)



# Field Covered in this Presentation

- Collector/Observer
- Collector Number
- Date
- Associated Collectors
- Verbatim Date
- Scientific Name
- Author
- Identification Qualifier
- Family
- Identified By
- Date Identified
- ID References
- Identification Remarks
- Taxon Remarks
- Country
- State/Province
- County
- Municipality
- Locality
- Location Remarks
- Latitude & Longitude
- Uncertainty
- Datum
- Verbatim Coordinates
- Verbatim Elevation
- Verbatim Depth
- Habitat
- Substrate
- Associated Taxa
- Description
- Phenology



# 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 (USCH's) stamped accession number
- Collector Name and Number
- Collection Date
- Latest Determination
- Country, State, and County



# Collector Information Fields

Collector Info

Catalog Number ?	Tag Name (optional) ?	Additional Identifier Value
<input type="text"/>	<input type="text"/>	<input type="text"/>
Collector / Observer ?	Number ?	Date ?
<input type="text"/>	<input type="text"/>	<input type="text"/>
Associated Collectors ?	Duplicates	
<input type="text"/>	<input type="checkbox"/> Auto search	
		Verbatim Date ?
Exsiccati Title	Number	
<input type="text"/>	<input type="text"/>	

We will address:

- Collector / Observer
- Number
- Date
- Associated Collectors
- Verbatim Date



# Collector / Observer

Collector: R. Dale Thomas with Scott D. Thomas  
No.: 164,462 Date: 20 Nov 2010

Collector / Observer ?	Number ?
Thomas, R. Dale	164462
Associated Collectors ?	
Thomas, Scott D.	

- The format for this field is to write the name in the format Last name, First name Middle initial Suffixes (if there are any).

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

Collector / Observer ?
Brown, Herrick H.K.

- Write the name as it appears on the label. Do not try to put the collector's full unabbreviated name.
- Only list one person in this field.
- Additional collectors go in the Associated Collectors field.
- If the label lacks a collector completely, the Collector / Observer is entered as "Unknown"

Collector / Observer ?	Number ?
Unknown	s.n.



# Collector/Observer: Name Discrepancies

- You may see specimens with the collector's name written differently on other labels from the same collector.
- *This is okay*, and you should still enter the name in the same format as before.

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



# Collector / Observer Number

- A number is typically included in specimen label next to the collector's name – this goes into the Number field immediately after the Collector / Observer field.
- If you come across a label that does not include a collection number, the Number field is entered as “s.n.”

Coll. Mrs. Edna Mixon Date 19 Nov 1960 No. Det W. T. Batson	=	Number ? s.n.
--	---	------------------

- Not all collector numbers appear in the same format (e.g., letters, dots, dashes, etc. may be included). Always enter the included collection number verbatim\*! \*Apart from commas

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

- Higher numbers may include commas, such as shown in the top example, however, commas should **NOT** be entered in the Number field.

\*The reason for not including commas is that it is not possible to search for a collector number with a comma in it.

Loran C. Anderson No. 13,076	=	Collector / Observer ?      Number ? Anderson, Loran C.      13076
------------------------------	---	---

DO NOT INCLUDE  
THE COMMA

[Return to Field List](#)

[Return to Collector Information](#)



# Collector Number: Examples

Steven R. Hill 18735A

Collector / Observer ?	Number ?
Hill, Steven R.	18735A

R. T. Ovrebo & C. M. Sladewski, W0100

Collector / Observer ?	Number ?
Ovrebo, R.T.	W0100
Associated Collectors ?	
Sladewski, C.M.	

Ben Williamson 2-11

Collector / Observer ?	Number ?
Williamson, Ben	2-11

Coll. H. W. House, Jr. Date 4/9/66 No. H-19

Collector / Observer ?	Number ?
House, H.W. Jr.	H-19

Royal D. Suttkus 79-19-06  
September 23, 1979

Collector / Observer ?	Number ?
Suttkus, Royal D.	79-19-06

D. Fulcher, M. Gavin; #10162002 16 X 2020  
Herrick Brown (det.)

Collector / Observer ?	Number ?
Fulcher, D.	10162002
Associated Collectors ?	
Gavin, M.	

F.H. Utech and  
M. Ohara 83-509

Collector / Observer ?	Number ?
Utech, F.H.	83-509
Associated Collectors ?	
Ohara, M.	

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# Date

- The Date field next to the Collector / Observer field refers to the date of collection. The format you use for this field is YEAR-MONTH-DAY.
  - Ex. May 1, 2003 would be entered as 2003-05-01
- You may also come across labels that do not include the complete date, or any date at all.
  - In these instances, the Date field is entered differently. A date with only the month and day, such as February 12, is entered as 0000-02-12, where zeros replace the year, and the verbatim field is entered as February 12. Similarly, a date that has only a year, for example, 1999, is entered as 1999-00-00, while the verbatim field will say 1999.
  - If the label lacks a date entirely, the Date is entered as 0000-00-00 with the Verbatim Date field entered as “s.d.”

Date ?	Verbatim Date ?
0000-00-00	s.d.



# Associated Collector(s)

- Follows the same format as the Collector/Observer field
  - 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: Special Cases

AB Pittman 08070206  
AR Darr 1547



Collector / Observer ?	Number ?
Pittman, A.B.	08070206
Associated Collectors ?	
Darr, A.R. (1547)	

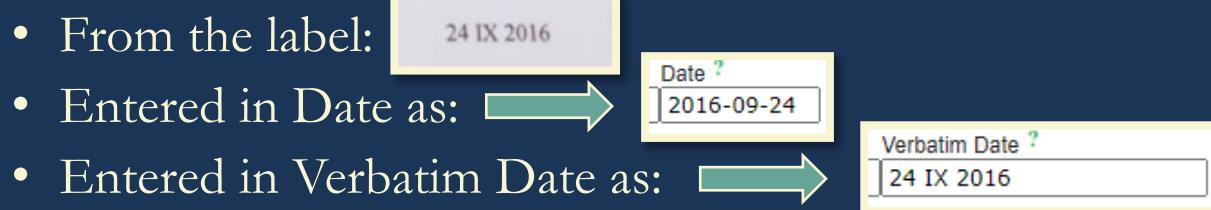
You may run into labels that include a collector number for an Associated Collector as well as the Collector / Observer Number.

- In this case, the only deviation we make from our regular format is to include the Associated Collector's number in *parentheses after their name*.



# Verbatim Date

- Not all collectors write the collection date the same way – the Verbatim Date field is where you enter the collection date from the label **exactly as it appears** (i.e., verbatim)
  - Ex. 24 IX 2016 would be entered in the Date field as 2016-09-24 and entered in the Verbatim Date field as 24 IX 2016



# Verbatim Date: Special Instances

- You may run into a collection that includes more than one date
- Ex. USCH0078585 has two collection dates
  - Flowers/Fruits: 24 III 1999, Foliage 7 X 1999
- In this instance, the earliest date is listed in the Date field (i.e., 24 III 1999 becomes 1999-03-24)
- In the Verbatim Date field, include both dates along with any additional information, then click on the pencil icon.



Associated Collectors ?	Verbatim Date ?
	24 III 1999; Foliage 7 X 1999
YYYY-MM-DD: ?	1999 - 3 - 21 Day of Year: ? 80 -

- After clicking the icon, a new field will appear. Your initial entry into the Date field will automatically fill out the beginning of the field and determine the day of the year that the collection took place. You can then use a day of the year calculation to find the day number for the second collection by using this link: <https://miniwebtool.com/day-of-the-year-calculator/>

Then manually type in the number provided by the calculator. In this example, it will be 280.

Then finalized field then looks like this:

YYYY-MM-DD: ?	1999 - 3 - 21	Day of Year: ?	80 - 280
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# Latest Identification Fields

Latest Identification -

Scientific Name ?	Author ?
ID Confidence ? Undefined	Identification Qualifier ?
Family ?	
Identified By ?	Date Identified ?



We will address:

- Scientific Name\*
- Author\*
- Identification Qualifier
- Family\*
- Identified By
- Date Identified
- ID References
- Identification Remarks
- Taxon Remarks

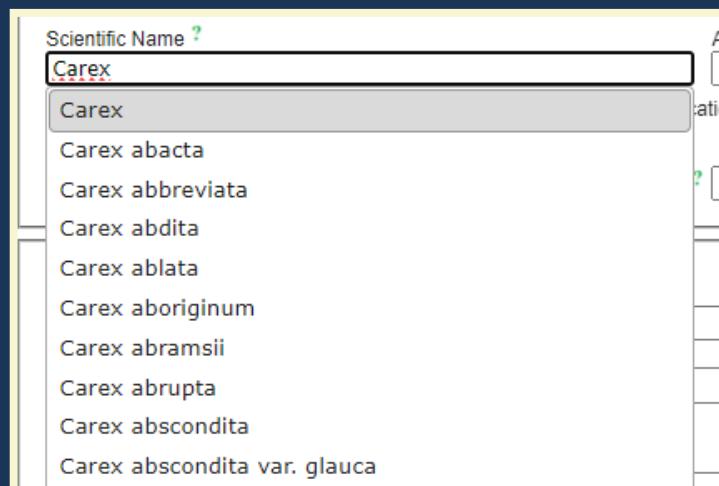
\*The slide **after** the Family field explains what to do if the auto-filled Scientific Name, Author, or Family do **NOT** match the data the collector provided on their label



# Scientific Name

Enter the scientific name as it appears on the label.

- As you type, a drop-down list will appear.
  - You can select the scientific name of the specimen from this list to avoid keystroke errors, but make sure you **DOUBLE CHECK** that you selected the correct name!



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# Author

The Author field is auto-filled after the Scientific Name is entered. Do **not** change anything that is auto-filled!

This screenshot shows a search interface for scientific names. In the top left, there is a text input field labeled "Scientific Name ?" containing the text "Viola sor". Below this, a dropdown menu lists several suggestions: "Viola sororia", "Viola sororia f. priceana", "Viola sororia f. sororia", and "viola sororia subsp. affinis". To the right of the dropdown, there are two input fields: "Author ?" and "Identification Qualifier ?". A green arrow points from this interface to the next one.

This screenshot shows the "Latest Identification" section of a form. It includes fields for "Scientific Name ?" (containing "Viola sororia"), "Author ?" (containing "Willd."), "ID Confidence ?" (set to "5 - Medium"), "Family ?" (containing "Violaceae"), "Identified By ?" (empty), and "Date Identified ?" (empty). The "Author ?" field is highlighted with a yellow border, indicating it is the focus of the previous step.

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# Identification Qualifier

- Enter the qualifier verbatim as it appears on the label in the Identification Qualifier field. This should be done in association with the relevant Identification/Determination only.
- Identification qualifiers may appear between the Genus and specific epithet, after or before the scientific name, or without apparent context.

Latest Identification

Scientific Name ?	Author ?
ID Confidence ? Undefined	Identification Qualifier ?
Family ?	
Identified By ?	Date Identified ?

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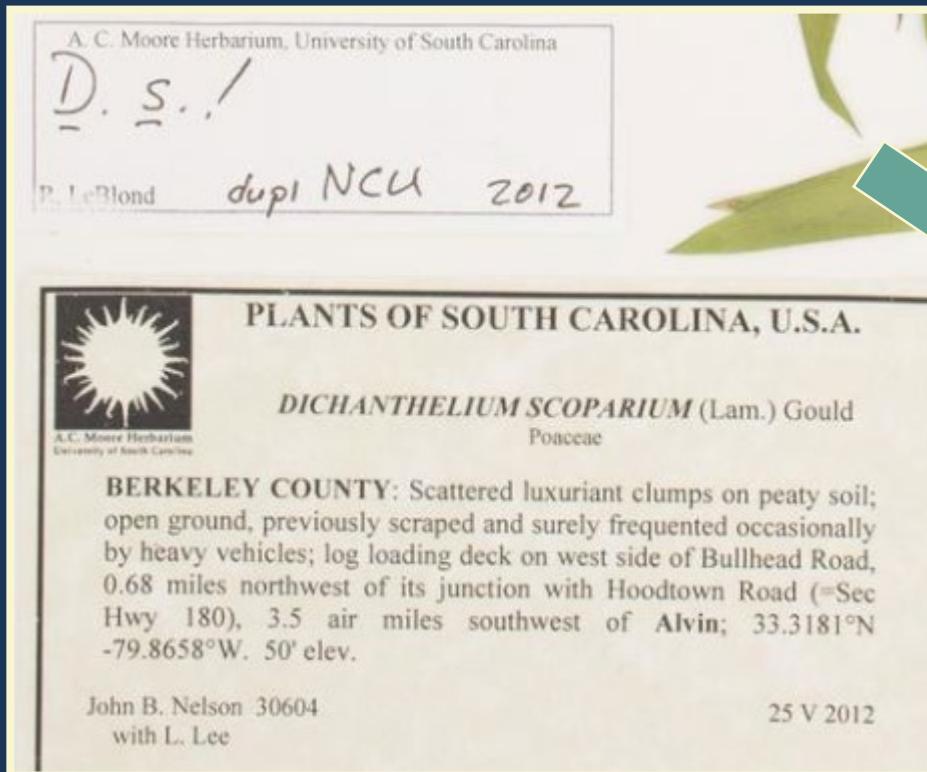
# Commonly Encountered Identification Qualifiers and Their Meanings

- ! - meaning: the same Genus and species as previous
  - (enter same Genus specific epithet as previous)
- 'as det.' - meaning: as determined previously
  - (enter same Genus specific epithet as previous)
- 'not' - meaning: I don't know what it is, but it's not what previous wrote\*
- *cf.* - meaning: *conferre* in Latin or compare to
  - (the determiner is confident with the Genus, but specimen lacks distinguishing characteristics to determine species definitively)
- *aff.* - meaning: *affinis* in Latin or affinity for or looks like
  - (the determiner is confident with Genus, but the specimen is distinctive from the proposed species or it is uncertain whether it falls within the range of variability)

\*The specimen then should be given to an expert to review the issue



# Identification Qualifier: Example



— Latest Identification —

Scientific Name ?	Dichanthelium scoparium	Author ?	(Lam.) Gould
Identification Qualifier ?	!	Family ?	Poaceae
Identified By ?	LeBlond, R.J.	Date Identified ?	2012-00-00

LeBlond is using 'D. s.!' to mean that he agrees (shown by '!') with the original determination of *Dichanthelium scoparium* (shown by 'D. s.')

— Determination History —

<b>Dichanthelium scoparium</b> (Lam.) Gould CURRENT DETERMINATION
Determiner: LeBlond, R.J. Date: 2012-00-00
Notes: Dupl NCU [duplicate at NCU]
<b>Dichanthelium scoparium</b> (Lam.) Gould
Determiner: Nelson, John B. Date: s.d.
Notes: Original det. on label. Presumed to be determined by collector.

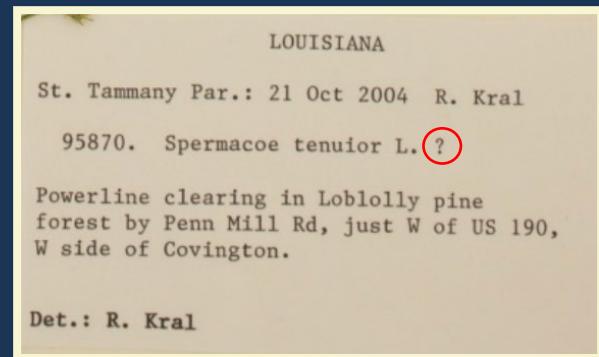
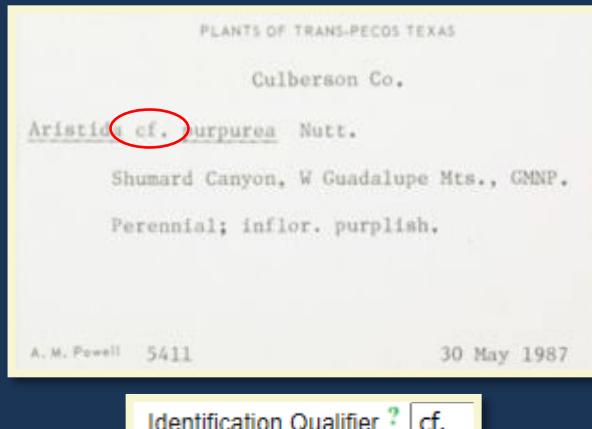
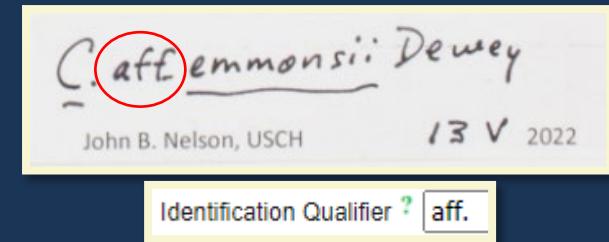
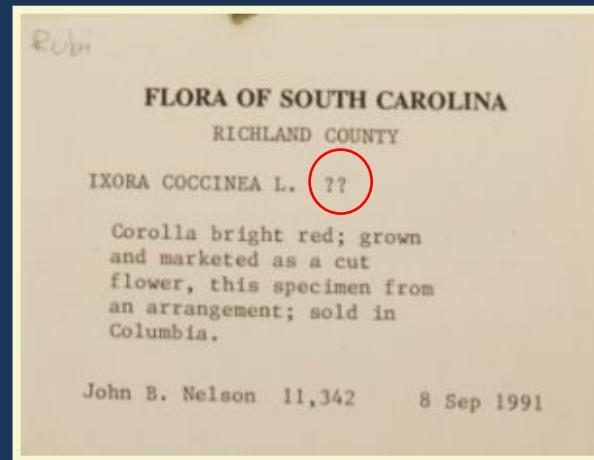
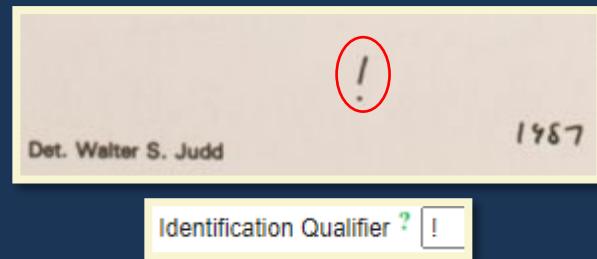
← Original ID

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# Identification Qualifier: More Examples

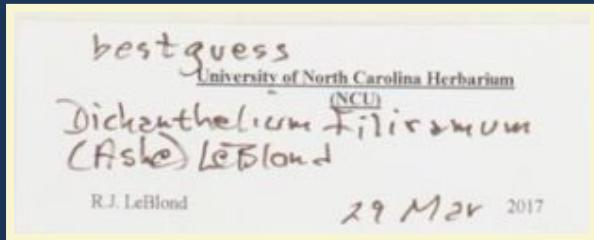


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# Identification Qualifier: Special Case



This example is a little unique because we don't know exactly what LeBlond means by 'best guess.'

That is, is he confident with the species but not the genus?

Is he saying that he does not see specific features known for that species but still believes that this is the correct species?

In this instance, we use cf. due to this uncertainty.



# Family

- The Family field is auto filled by SERNEC after the Scientific Name is entered. Do not change anything that is auto filled!



# Scientific Name, Family, and Author Discrepancies

\*For this issue, we highly recommend keeping an Excel sheet for these records that includes the following:

- Barcode/catalog number
- Accession number
- Collector and collector number
- Collection date
- Collector-provided scientific name
- Collector-provided family name
- Collector-provided author name
- SERNEC-provided scientific name
- SERNEC-provided family name,
- SERNEC-provided author,
- Date that the issue was found and who it was found by
- If the discrepancy has been resolved

**\*The specimen then should be given to an expert to review the issue**

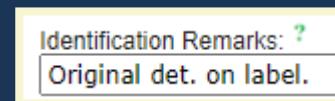
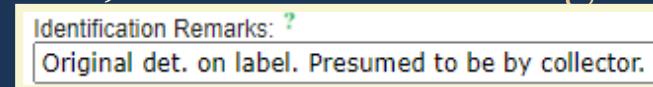
Mistakes **do** happen, and the data that is physically listed on the specimen label may be different from what SERNEC auto-fills.

\*This most often occurs in copy-paste errors by the collector when they create their labels.



# Identified By

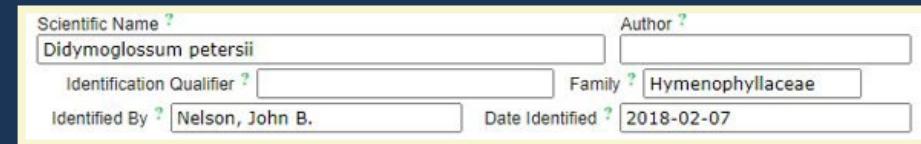
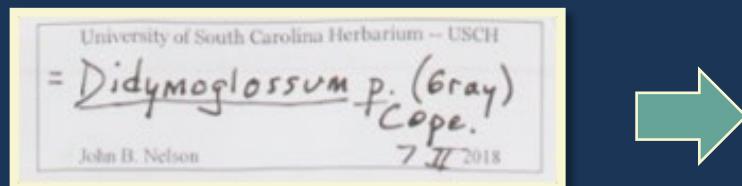
- The original determination on the label is the first determination that is added into the Latest Identification field.
- Unless the determiner is specified on the label, assume that the original identification was made by the collector.
  - In these instances, in the Identification Remarks, also include: "Original det. on label. Presumed to be by the collector."
- If the determiner *is* identified on the label, you should *still* include "Original det. on label." in the Identification Remarks.



# Date Identified

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

- If a date is provided, follow 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.



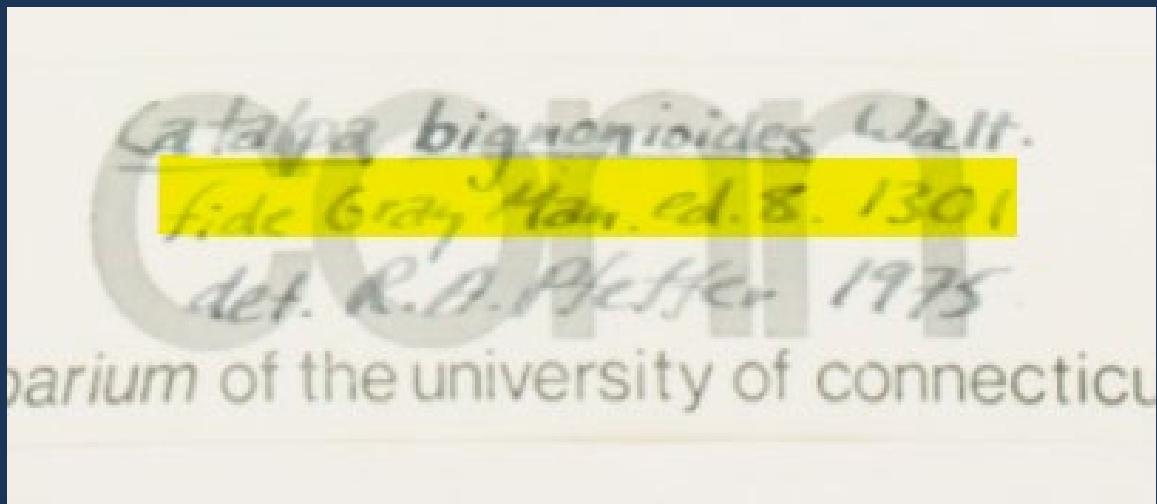
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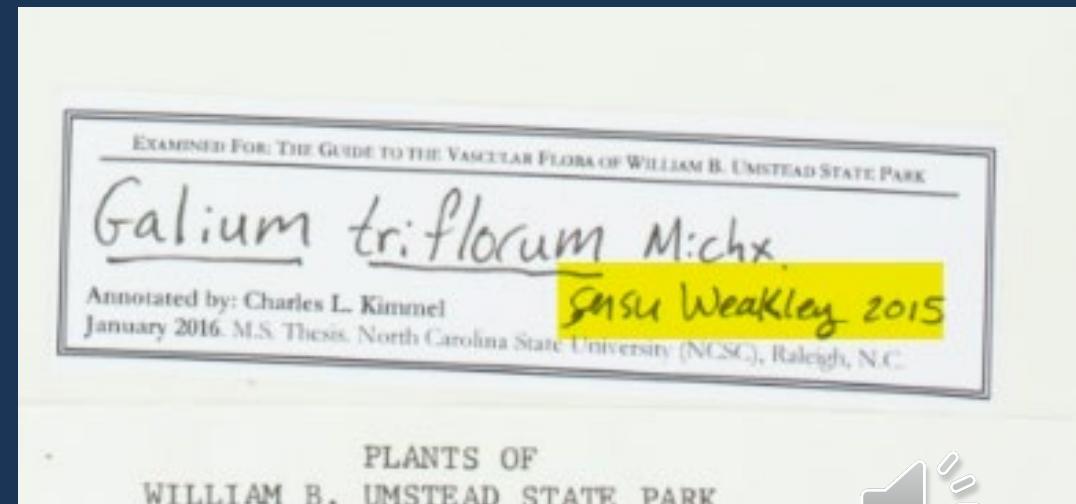


# ID References

- The reference source used to make the identification. (as per Symbiota Docs)
- Write the references verbatim.



ID References: *fide Gray Man. ed. 8. 1301*



ID References: *sensu Weakley 2015*

# Identification Remarks

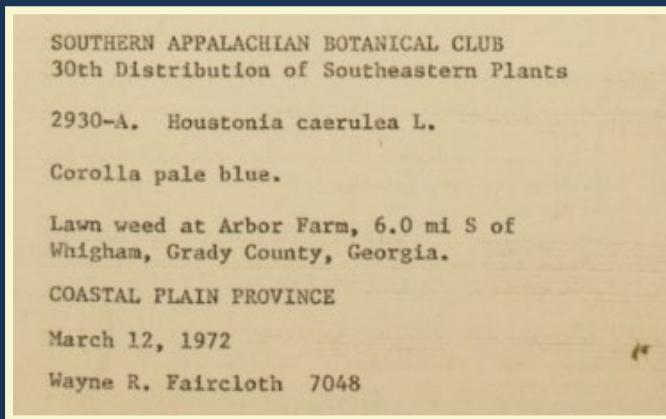
- Used for any notes about the identification other than ID references.
- Separate types of remarks with a semicolon.
- These are the most common types:
  - Comments about the determiner
  - Comments about the determination
  - Projects the Annotation was From
  - Taxon Remarks\*



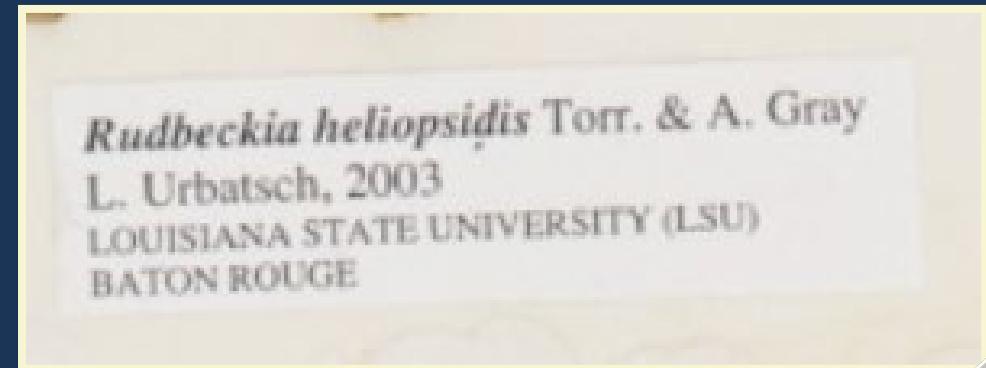
\*See Taxon Remarks Slide

# Identification Remarks: Comments About the Determiner

- Comments about the determiner
  - What institutions the determiner is associated with
    - Only if it is written! Do not assume institution.
    - Usually only found on annotation labels; rarely on specimen label itself.
  - If no determiner and no determination date is provided specifically for the original determination on the specimen label
    - Write “Original det. on label. Presumed to be determined by collector.”
  - If no determination date is provided specifically for the original determination on the specimen label
    - Write “Original det. on label.”



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

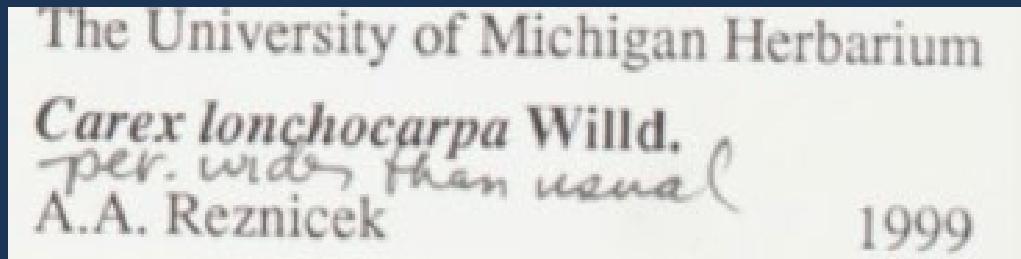


*Identification Remarks: Annotation label from Louisiana State University (LSU) Baton Rouge*

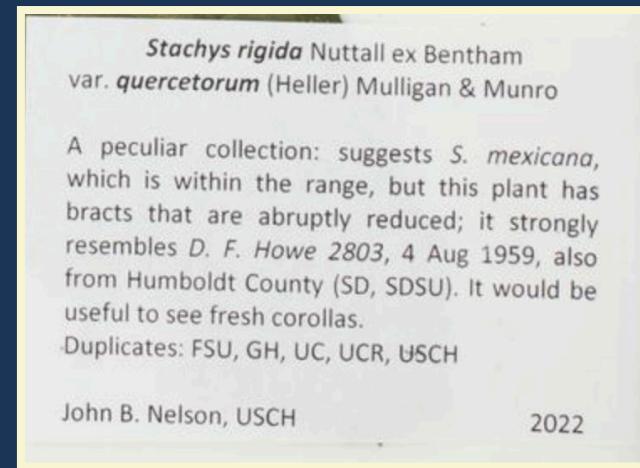


# Identification Remarks: Comments About Determination

- Comments specifically about the determination including how they came to the determination or any comments about how sure they are about the determination

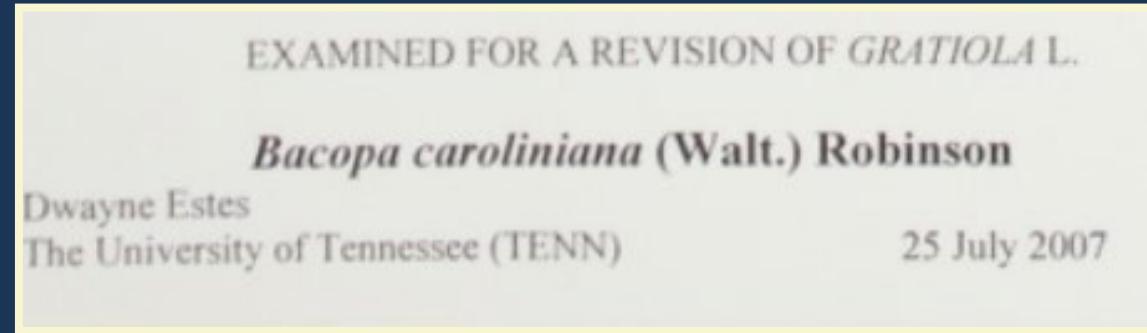


Identification Remarks: *per. wider than usual*; Annotation label  
from The University of Michigan Herbarium



# Identification Remarks: Projects the Annotation was From

- Some annotation labels mention a project that the annotator was working on that lead to them annotating the specimen



*Identification Remarks: Examined for a Revision of Gratiola L.; Annotation label is from The University of Tennessee (TENN)*

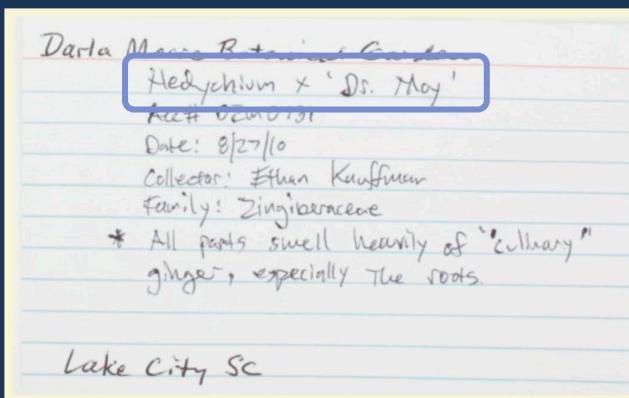


# Identification Remarks: Taxon Remarks

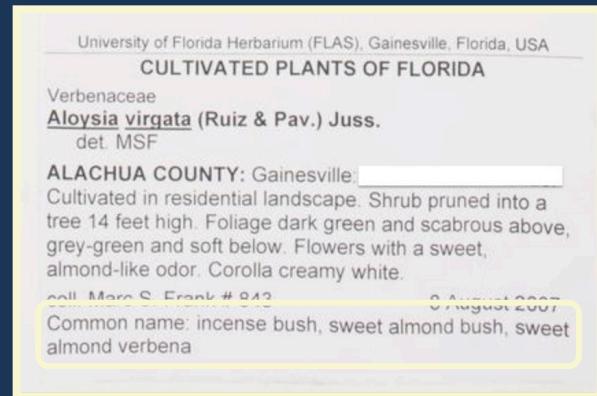
- The Taxon Remarks field is not being used currently because it is tied to the record not to individual determinations

Taxon Remarks Include:

- Common name(s) (Only enter name(s) listed on the label!)
- Label notes regarding hybridization, cultivars, etc.



Identification Remarks: *Hedychium x 'Dr. May'*



Identification Remarks: Common name: incense bush, sweet almond bush, sweet almond verbena



# Locality Fields

Locality

Country ?	State/Province ?	County ?	Municipality ?	Location ID ?
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Locality ? <input type="text"/>				
Security: Security not applied ? <input type="button" value="?"/>				
Latitude	Longitude	Uncertainty ?	Datum ?	Verbatim Coordinates ? <input type="checkbox"/> Deactivate Locality Lookup
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
C	F	<input type="button" value="&lt;&lt;"/>	<input type="text"/>	<input type="button" value="+"/>
Elevation in Meters ?	Verbatim Elevation ?	Depth in Meters ?	Verbatim Depth ?	<input type="button" value="+"/>
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="button" value="+"/>

We will address:

- Country
- State / Province
- County
- Municipality
- Locality
- Security
- Location Remarks
- Verbatim Coordinates
- Latitude and Longitude
- Uncertainty
- Datum
- Verbatim Coordinates
- Verbatim Elevation
- Verbatim Depth



# Country

**Definition: First Level Administrative Subdivision or the country that the herbarium specimen was collected in.**

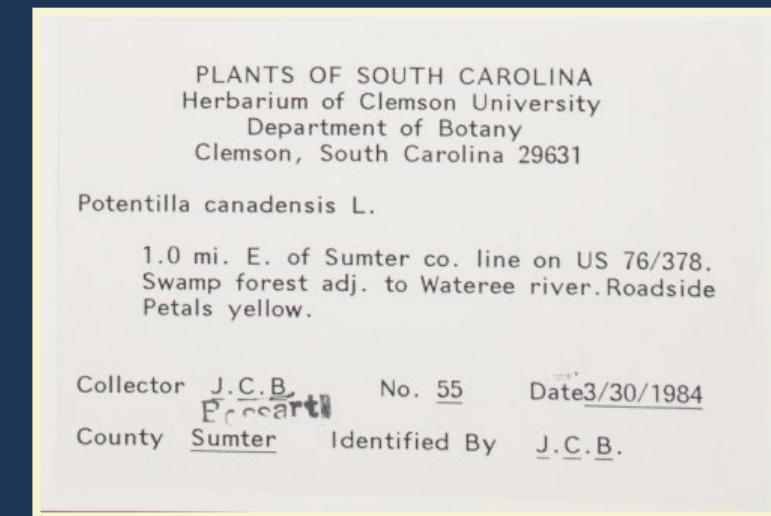
- SERNEC follows the Getty Thesaurus
- For all specimens collected in the United States the country is “United States”

If a specimen is collected outside of the United States, please reference the Georeferencing Data Processing Presentation.



# Country

- Based on the label, the data processor should be able to tell that it is in the United States
- If you are unsure, please reference the Georeferencing Data Processing Presentation or ask for assistance



*Herbarium Specimen Label indicating the state but not that it was collected in the U.S.*

n° 15939 *Chenopodium album* L. var. *album* f. *glomerulosum* (A. Ludwig) Arlt & Jüttersonke [Cf. K. Arlt & B. Jüttersonke, *Feddes Rep.*, 100 : 1-69, 1989]

Zellendorf (**Germany**, Land Brandenburg, Kreis Jüterbog), alt. 90 m, *Zea mays* field, treated with herbicides, August 23th, 1990.

Leg. K. Arlt, B. Jüttersonke, H. Kraft, Th. Rausch & H. Scholz  
Det. K. Arlt & B. Jüttersonke



*Herbarium Specimen Label indicating it was collected outside of US.*

# Country: Using the Dropdown

- Options don't start to show up until at least 2 letters have been written.
- Make sure to select the correct option.

The screenshot shows a portion of a web-based location entry form. At the top, there are three input fields: 'Country' (with a question mark icon), 'State/Province' (with a question mark icon), and 'County' (with a question mark icon). Below these is a 'Locality' field with a question mark icon. Further down, there's a 'Security' dropdown menu set to 'Security not applied'. Underneath are fields for 'Latitude', 'Longitude', 'Uncertainty' (with a question mark icon), 'Datum' (with a question mark icon), and 'Vertical'. There are also fields for 'Elevation in Meters' (with a question mark icon) and 'Depth in Meters' (with a question mark icon). Various icons and buttons are visible between and around these fields.

# State/Province

**Definition:** Second Level Administrative Subdivision or the state/province that the herbarium specimen was collected in.

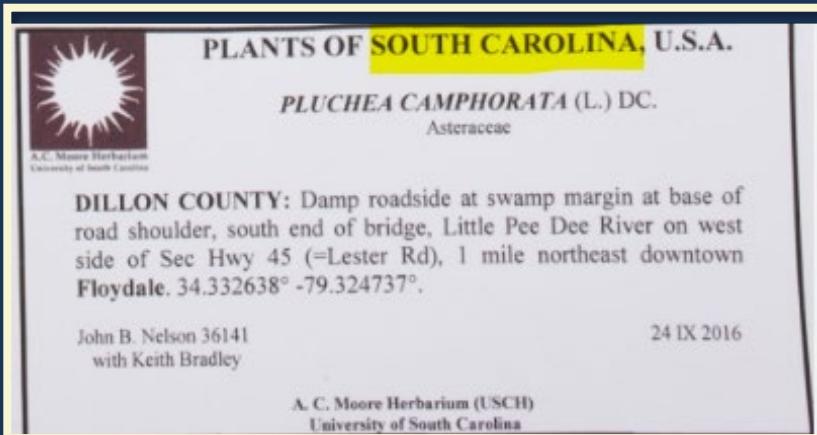
For specimens collected in the United States:

- Always make sure that the State is spelled correctly
- Write out abbreviated states
- Do not put extra spaces in the state name
  - Ex. “South Carolina”
  - Ex. ” South Carolina”
  - Ex. “South Carolina”

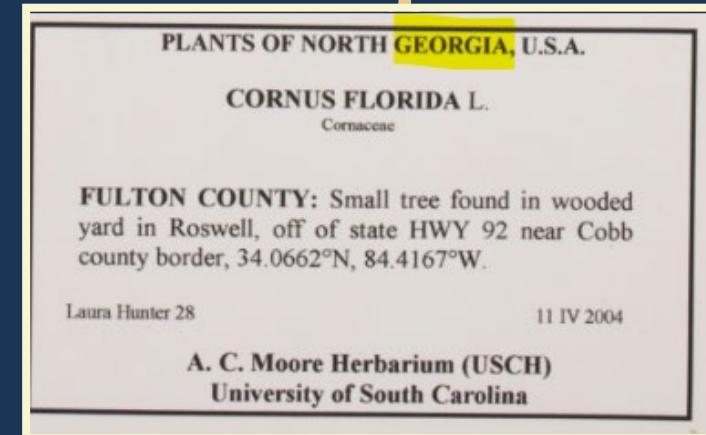
If a specimen is collected outside of the United States, please reference the Georeferencing Data Processing Presentation.



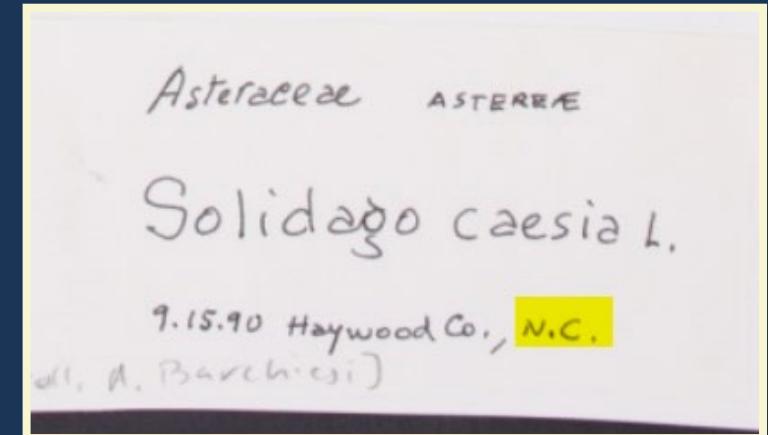
# State/Province: Examples



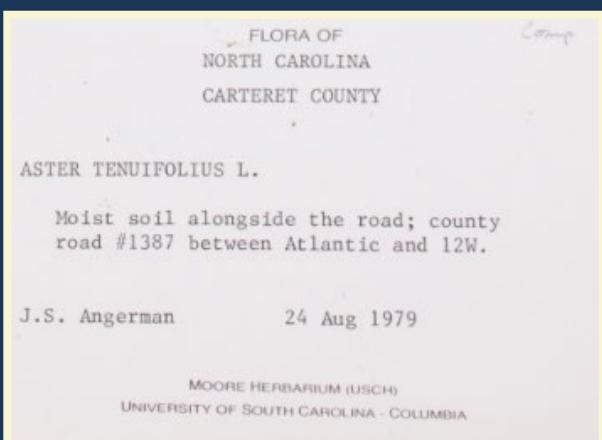
*State/Province: South Carolina*



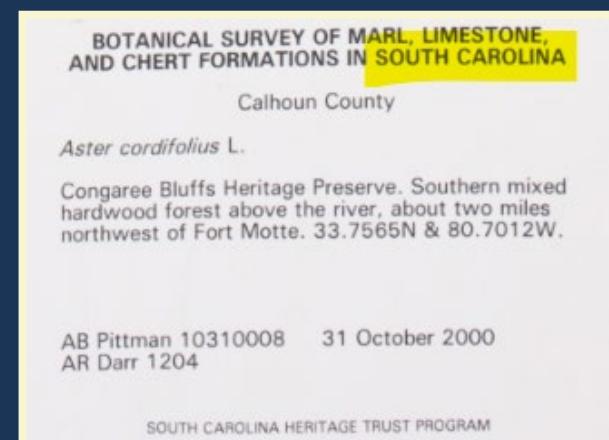
*State/Province: Georgia*



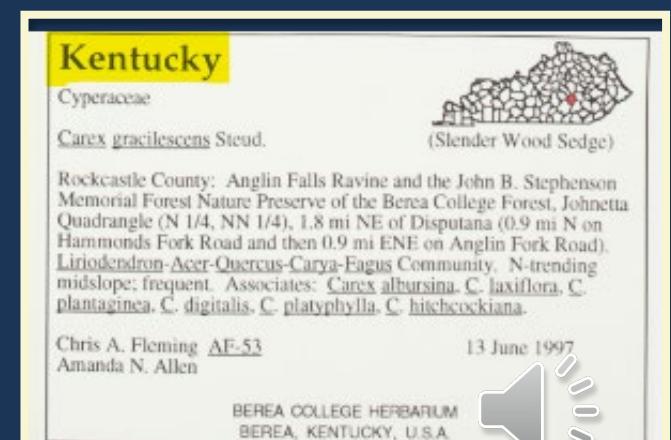
*State/Province: North Carolina*



*State/Province: North Carolina*



*State/Province: South Carolina*

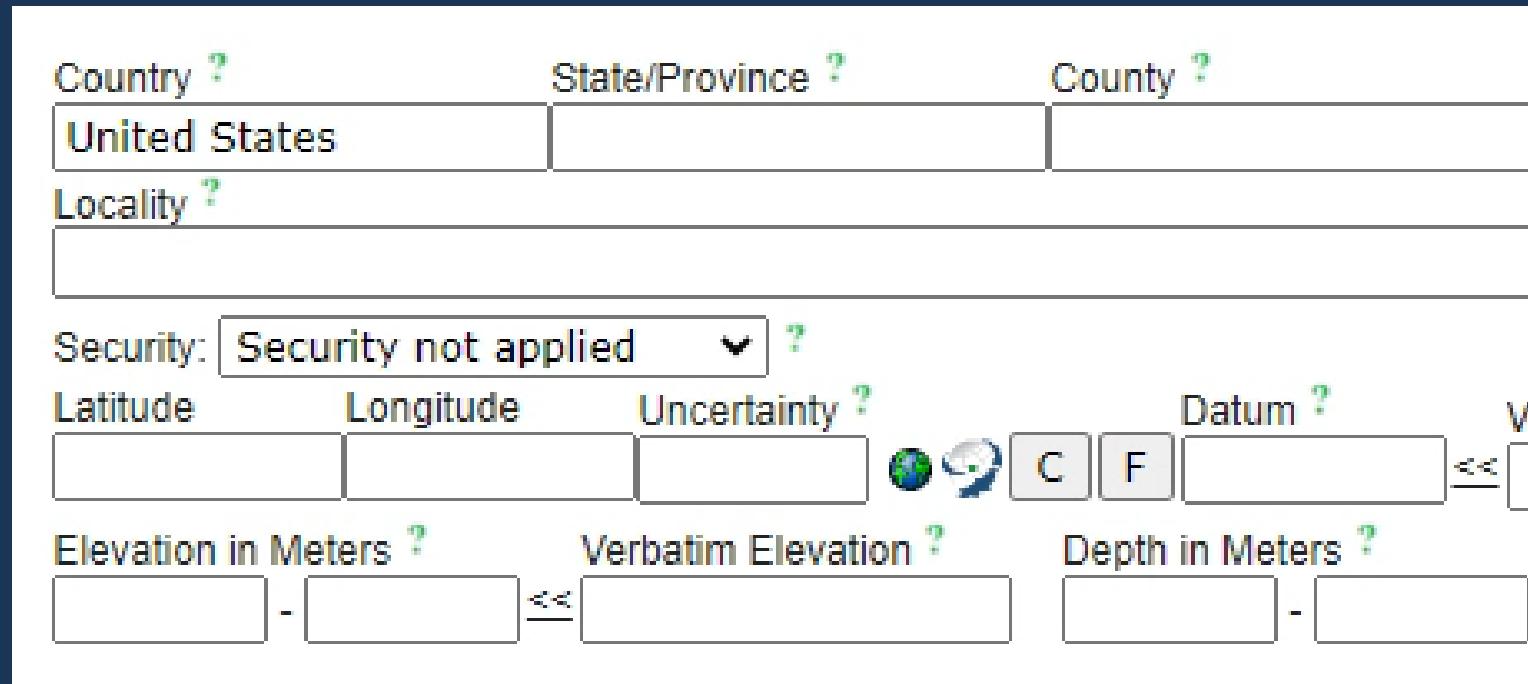


*State/Province:* Kentucky

# State/Province: Using the Dropdown

- Options don't start to show up until at least 2 letters have been written.
- Make sure to select the correct option.

Country ? United States	State/Province ?	County ?
Locality ?		
Security: Security not applied ▾ ?		
Latitude	Longitude	Uncertainty ? C F
Elevation in Meters ?	Verbatim Elevation ?	Depth in Meters ?



# County

**Definition: Third Level Administrative Subdivision or the county that the herbarium specimen was collected in.**

For specimens collected in the United States:

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

If a specimen is collected outside of the United States, please reference the Georeferencing Data Processing Presentation.

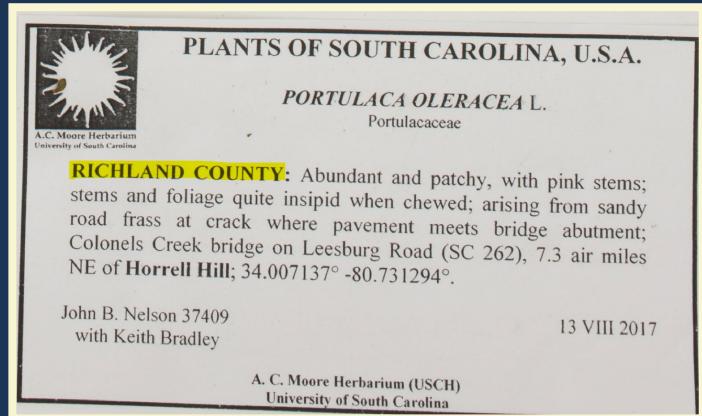


# County

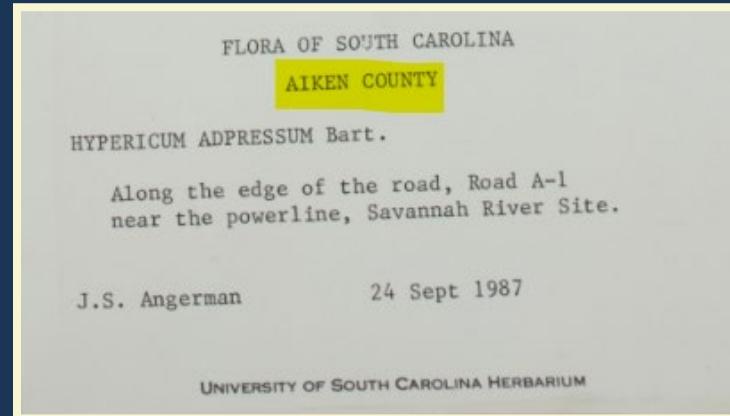
- Options don't start to show up until at least 2 letters have been written.
- Make sure to select the correct option.

Country ? United States	State/Province ? South Carolina	County ? <input type="text"/>
Locality ? <input type="text"/>		
Security: Security not applied		
Latitude <input type="text"/>	Longitude <input type="text"/>	Uncertainty ? <input type="text"/>  
Datum ? <input type="text"/> C	F	V
Elevation in Meters ? <input type="text"/> - <input type="text"/> 	Verbatim Elevation ? <input type="text"/>	Depth in Meters ? <input type="text"/> - <input type="text"/>

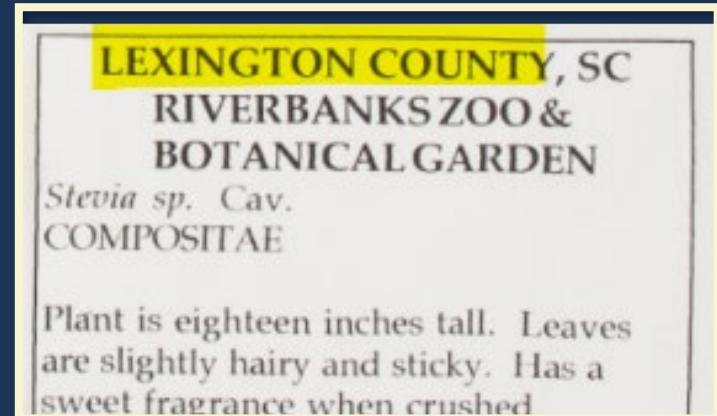
# County: Examples



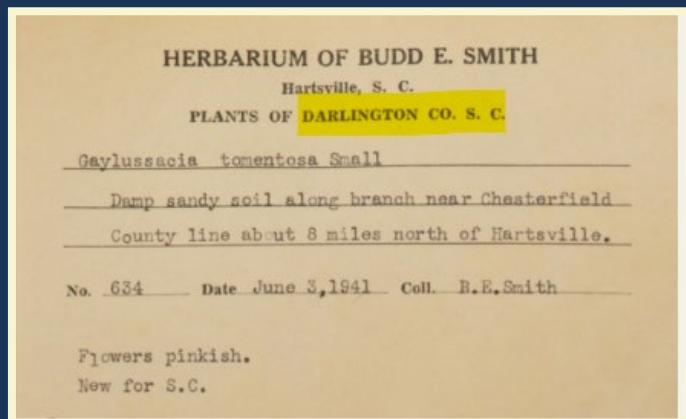
County: Richland



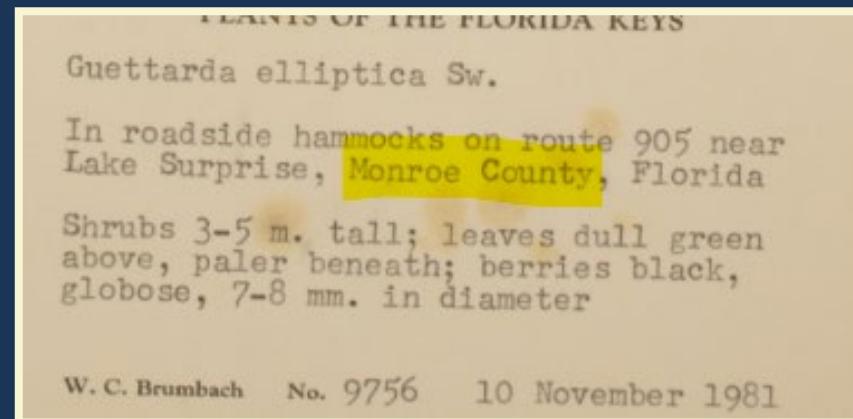
County: Aiken



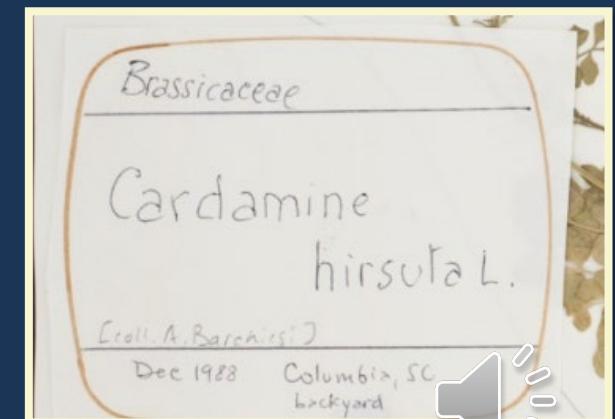
County: Lexington



County: Darlington



County: Monroe

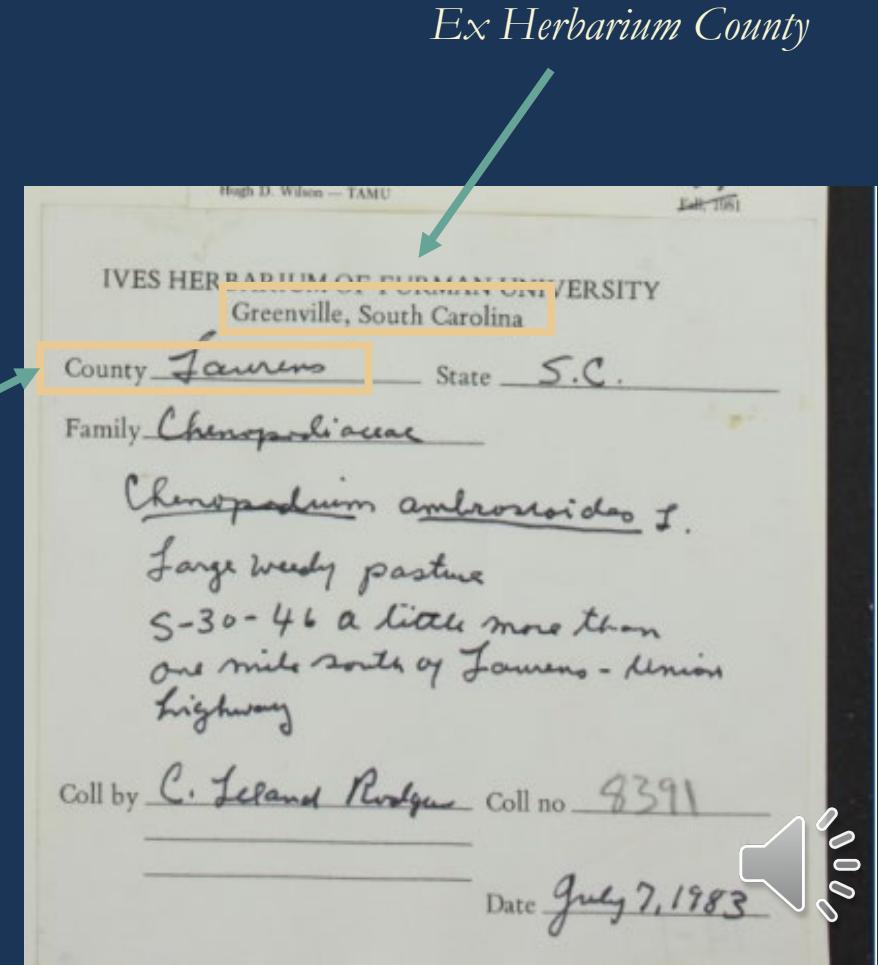


This label needs research!

# County: Special Cases

- Some labels may have old herbaria information on it that includes the location of the herbarium.
- The difference is that this county information is located right next to the herbarium information.
- Ask for assistance if unsure.

*Specimen County*



# Municipality

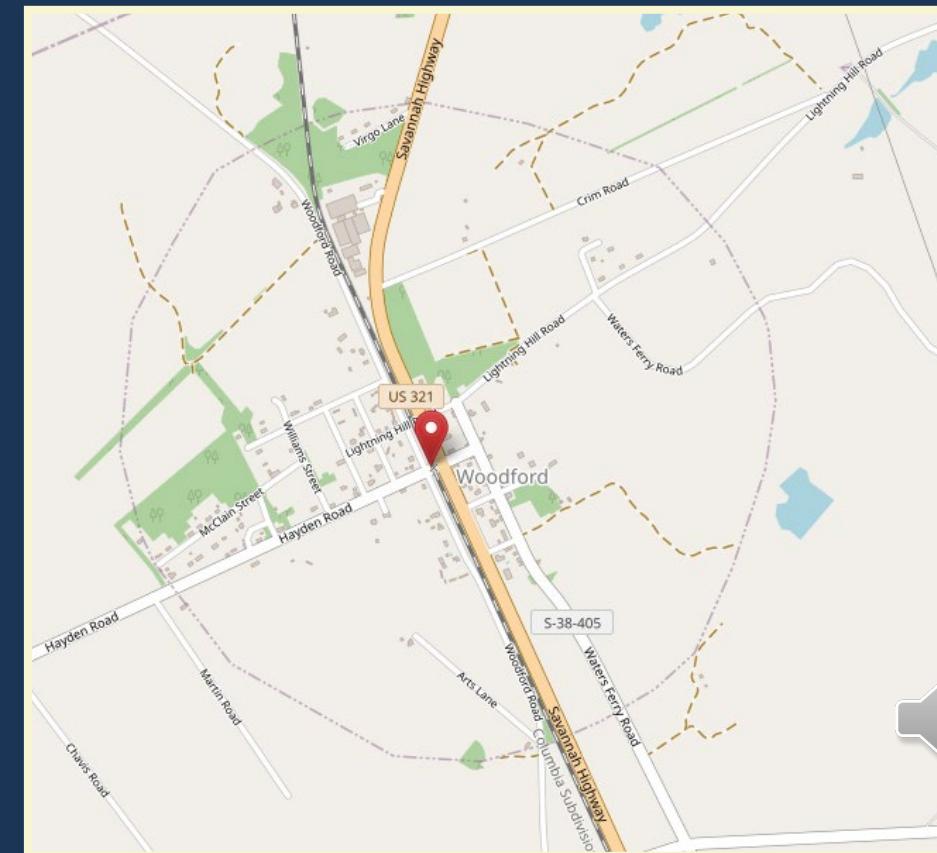
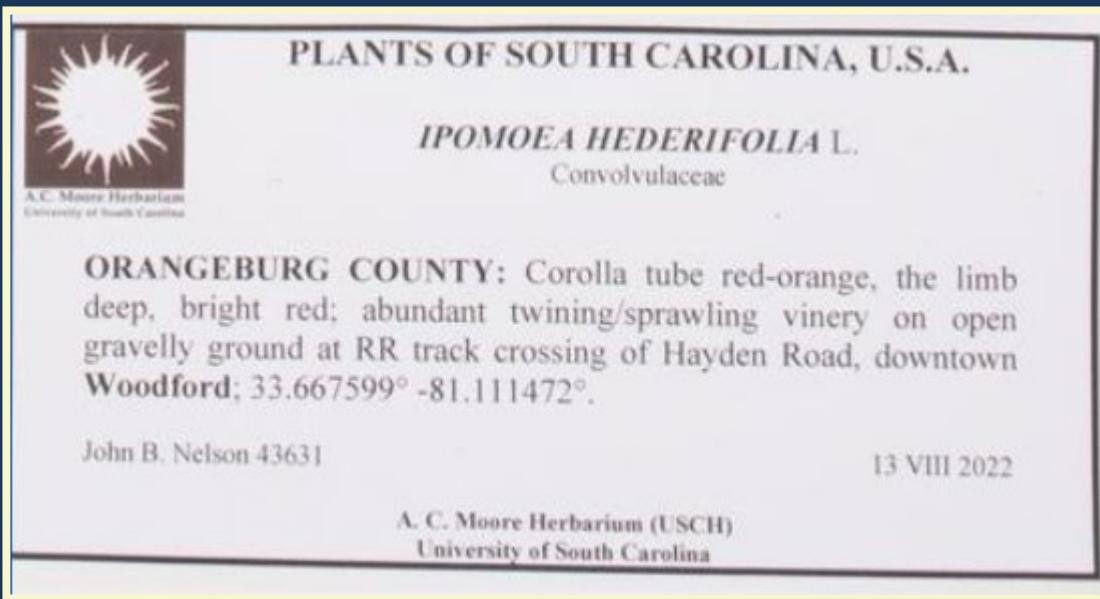
**Definition: Fourth Level Administrative Subdivision or the city that the specimen was collected in.**

- SERNEC follows the Getty Thesaurus
- Just because a city is mentioned on the label does not mean that the specimen was collected in that city
- If no municipality is given by the collector, leave this field blank
- If you are unsure, please reference the Georeferencing Data Processing Presentation or ask for assistance



# Municipality: Example

This specimen not only says it is in Woodford, but it can also be seen on Open Street Maps that is.

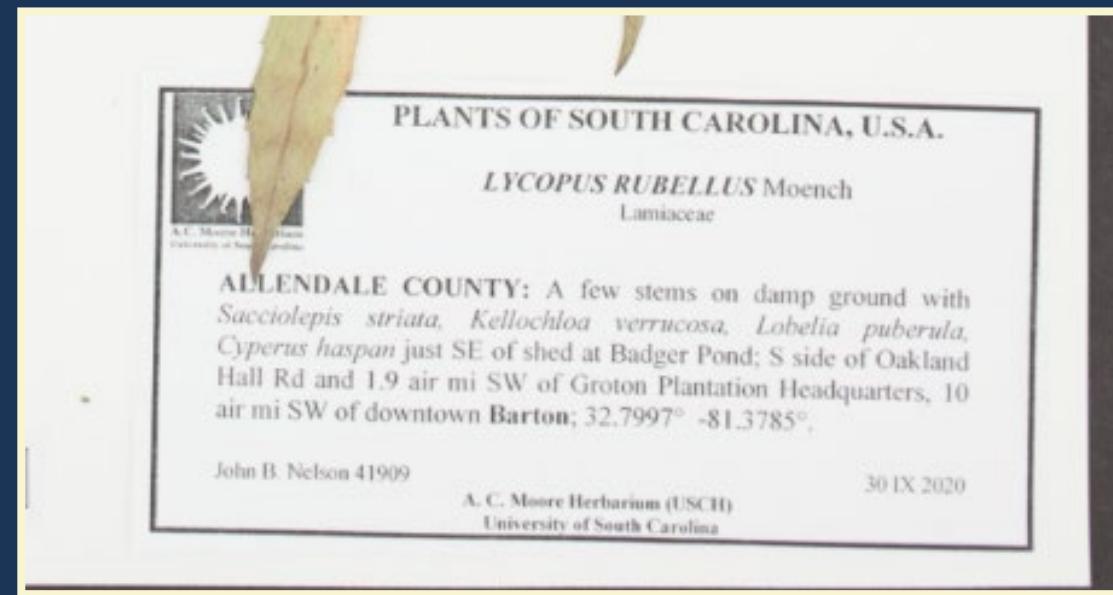


[Return to Field List](#)

[Return to Locality](#)

# Municipality: Example

There is a municipality on this label. However, it says it is 10 air mi SW of downtown Barton meaning it is not in Barton so it will not go in the municipality field.



# Locality

- At USCH which processes specimens in stages the data processor leaves Locality blank, please refer to your manager for instructions
- For more detailed information see Georeferencing Data Processing Presentation
- The basic structure
  - The main broadest area goes first, then a semicolon “;”, and then the rest follows separated by a comma “,”.
  - It is written to be broken down by hierarchy. Imagine that you are using a map to find the place. Most labels are written bottom up.



# Locality: Example

Step 1: Identify largest broadest area that the specimen is on. If someone wanted to get into a car and drive to this location, where would they go to first?

US 17

Step 2: Where on US 17 is the specimen?

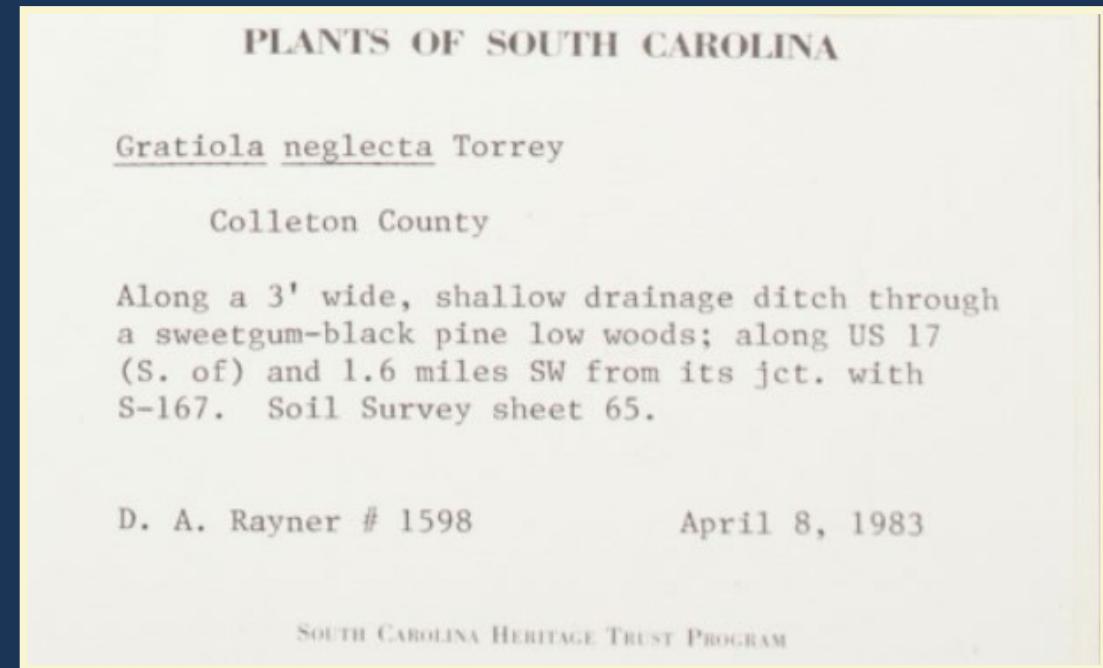
1.6 miles SW from its jct. with S-167 [State Rd S-15-167/Pon Pon Plantation Avenue]

Step 3: Any other info?

S of US 17

Step 4: Put it together

*Locality: US 17; 1.6 mi SW of jct with State Rd S-15-167, S side of rd*



**Locality:** United States, South Carolina, Colleton, US 17; 1.6 mi SW of jct with State Rd S-15-167, S side of rd



# Security

- If the label specifically mentions that the location is a private residence AND has a name associated with it set it to “Landowner Concern”.
- Will show up as:
- “Private residence”
- “Property of \_\_\_\_\_”
- “\_\_\_\_\_ Property”

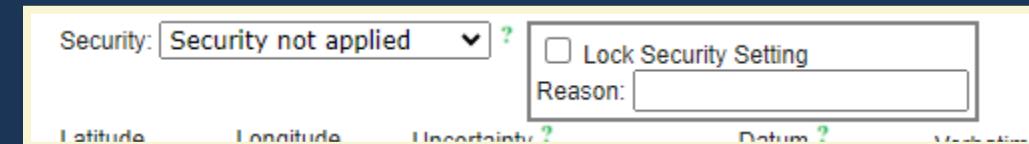
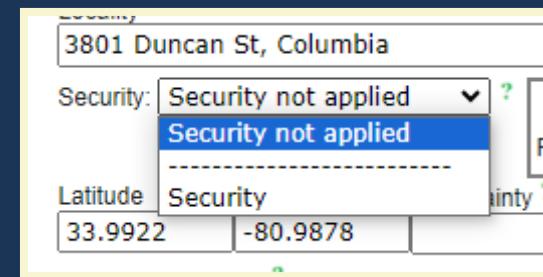


[Return to Field List](#)

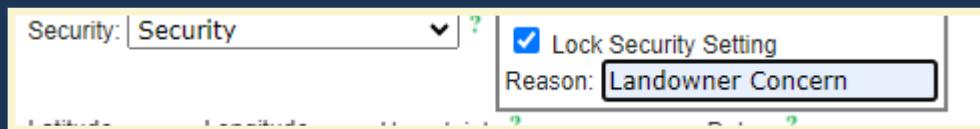
[Return to Locality](#)

# How to Apply Security

1. Click the down arrow on Security
2. Select Security



3. Go to the reason box and type the reason. The Lock Security Setting will automatically become checked.



# Security-Reason Private Residence Examples

Common, at edge of cove forest with basic soils at the base of north-northwest-facing ridges of Wadakoe Mountain, **Property of Wes Cooler**. USGS Sunset 7.5' quad., 1.

W. Associated with *Carya ovalis*, *Fraxinus pensylvanica*, *Quercus rubra*, *Liriodendron tulipifera*, *Fagus grandifolia*, *Calycanthus floridus*, *Coreopsis latifolia*, *Actaea racemosa*.

**KERSHAW COUNTY:** Corollas white; occasional erect herbs, the foliage tends to be a sort of bright, light green; grassy ground at base of slope with *Juniperus virginiana*, *Sabatia angularis*, *Gonolobus suberosus*, *Aesculus pavia*, *Juglans nigra*; north end of dried-down small pond; east side of Wateree River, **Ferral property**.

Infrequent in frequently mown and annually burned meadow in sandy soil of uplands,

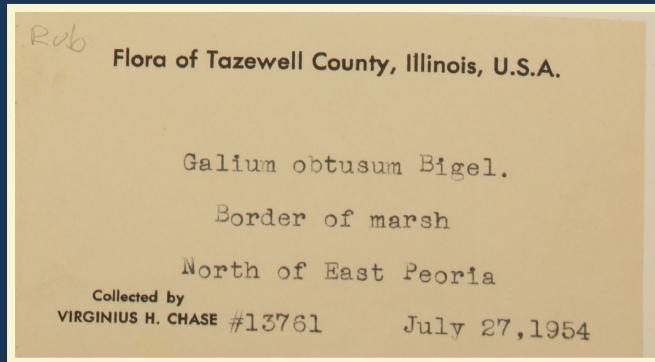
**Property of Richard D. Porcher.**

starting in a gourd patch, gourds now long gone; this plant's stems erect and profusely branched, would be about 2m tall, but halfway through this past summer the stems as a group began to fall over, so propped up for the rest of the season with a three-tiered metal garden plant stand; full bloom in mid-October, and on sunny afternoons, attracting great numbers of small wasps and carpenter bees (?) (two or more size classes?); **backyard at residence**

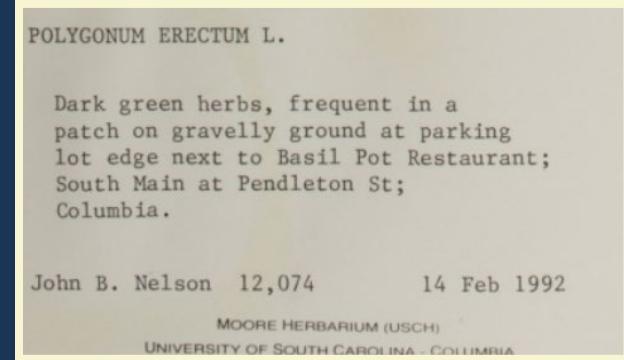


# Location Remarks

- What goes into this field:
  - Anything and everything to do with location *even if it is repeated in habitat*
  - Sometimes the location remarks are mixed into the label depending on who wrote the label.



**Locality:** United States, Illinois, Tazewell, N of East Peoria; border of marsh  
**Location Remarks:** Border of marsh. North of East Peoria.  
**Habitat:** Border of marsh.



**Locality:** United States, South Carolina, Richland, Columbia, Basil Pot Restaurant; parking lot edge  
**Location Remarks:** At parking lot edge next to Basil Pot Restaurant; South Main at Pendleton St; Columbia.  
**Habitat:** Frequent in a patch on gravelly ground at parking lot edge.

# 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.



# Verbatim Coordinates

- Some collectors will provide coordinates of where they found the specimen on the label.
- If the collector provided other types of coordinates such as UTM or other geographical identifiers such as TRS those will also be entered into the Verbatim Coordinates field.

BOONE COUNTY: T84N R25W SW ¼ Sec. 30. Elev. 346 m, 42.05158°N Lat., -93.811186°W Long. (NAD83).

shady wet woods, the edge of a seepage slope featuring a permanent seepage stream, this a west-flowing tributary of Singleton Creek; 2.02 air mi SW of Liberty Hill; 34.4669°N, 80.8346°W; Liberty Hill 7.5' topo.

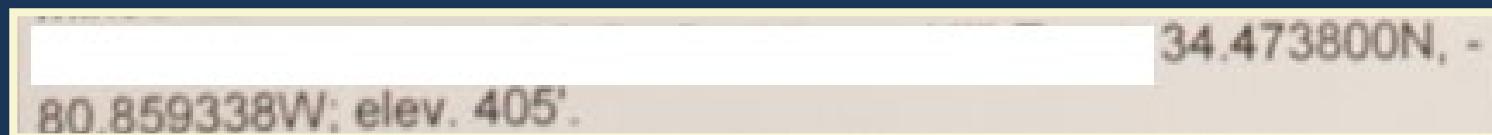
E of mouth of Cedar Creek and near river bend and immediately W of Vegetation Plot 121, UTM coords 3736053N 527558.2W; 5.38 mi upstream from US 601 boat landing. Elev 85'.

Small prairie opening in pine woods along road to a cemetery about 1.5 miles west of U.S. 167 south of Pacton, Sec. 5, T9N, R2W. Tancock's Prairie.

Johnston #2/Lower Stripmine/Crisp Pond area. LAT: 40° 09' 45" N; LONG: 79° 16' 10" W. ELEV: 1250 ft.

# Verbatim Coordinates

- If the collector provides Verbatim Coordinates, type the coordinates into the Verbatim Coordinates Field exactly as they appear; don't worry if they don't carry over
- If the coordinates are in decimal degrees like this label:



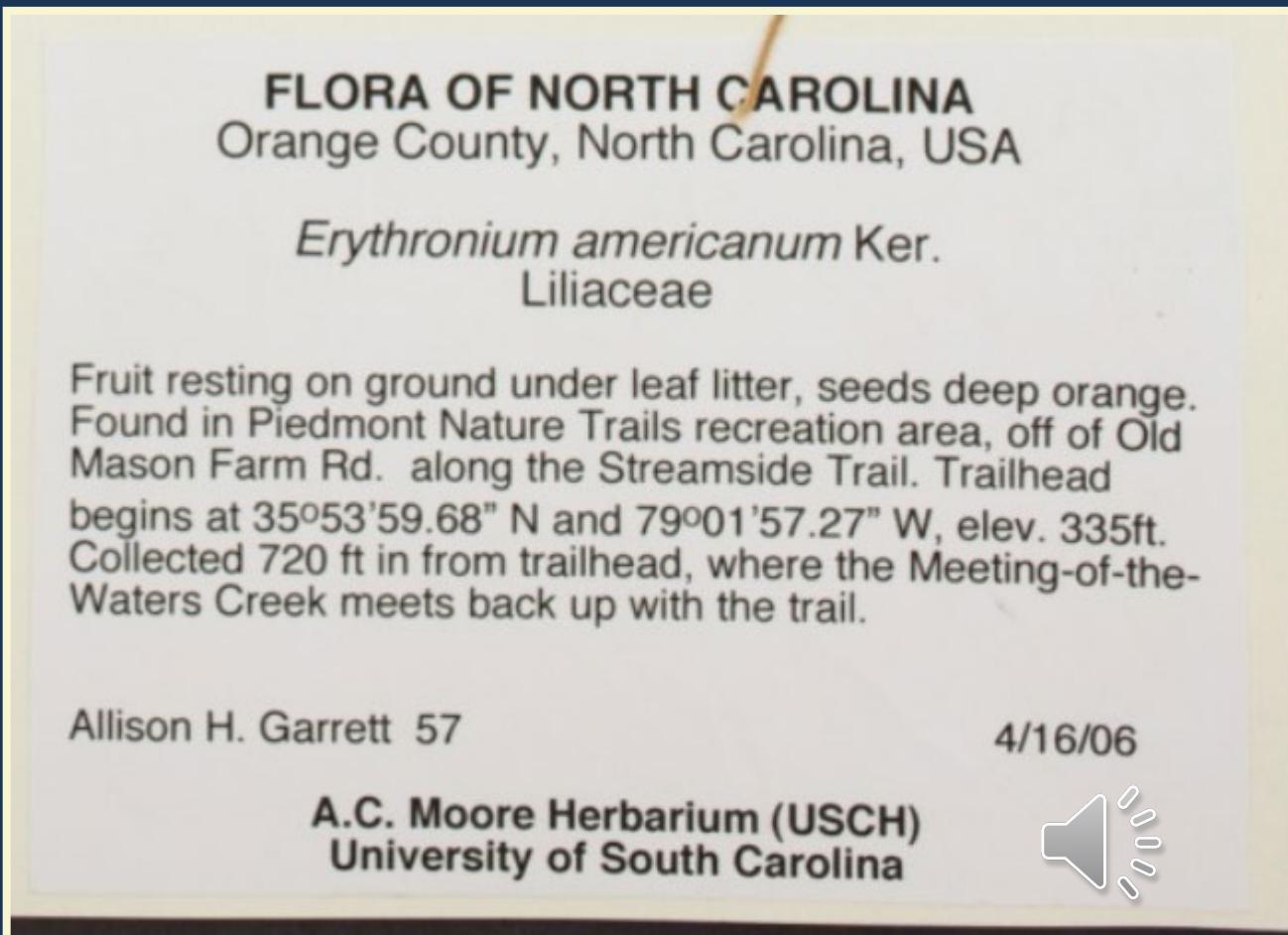
- Copy the coordinates into decimal lat and long:

Latitude	Longitude
34.4738	-80.859338



# Reference Coordinates

- Sometimes collectors will provide reference coordinates.
- In this example, the collector put the coordinates of the trailhead but says that the specimen was collected 720 feet from those coordinates.
- These are not the coordinates of the collection! They go into Location Remarks along with all other location information.



# Multiple Geographical Identifiers

- Some collectors will put multiple geographical identifiers such as coordinates and TRS or UTM and coordinates in decimal degrees.
- Prioritize putting coordinates (specifically decimal degrees) into the verbatim coordinates field.
- Make sure all geographical identifiers are in Location Remarks.

MINNESOTA BIOLOGICAL SURVEY  
Plants of Koochiching County, Minnesota, USA

*Equisetum variegatum* Schleich. ex F. Weber & D.M.H. Mohr

In a wet, clay-bottom ditch along Hwy 30, about 4 miles west of Big Falls. Associated with *Carex interior*, *C. viridula*, *Scirpus microcarpus*, *Carex castanea*.

T 155N R 25W SW¼ of SW¼ of Sec 31  
Lat. 48° 11' 50" N Long. 93° 54' 11" W

Welby R Smith 31697

June 16, 2010

DEPARTMENT OF NATURAL RESOURCES, PERMIT 15438

\*\*\* Flora of Northeastern Minnesota \*\*\*

Minnesota County Biological Survey

*Spergularia rubra* (L.) J. & C. Presl.

T60N R11W S01NESW

Lake County, MN

Superior National Forest. New Tomahawk Road gravel pit approximately 12.8 miles east of Babbitt, MN and 1.0 miles west of Highway 1.

Recently expanded and disturbed gravel pit with *Leucophysalis grandiflora*, *Geranium bicknellii*, *Medicago sativa*, *Leucanthemum vulgare*, *Carex houghtoniana*, *Elymus repens*, etc.

Lynden B. Gerdes

LBG # 7209

Special Permit # 19437

Caryophyllaceae

NAD 83 / 47° 42' 36" N, 91° 40' 00" W



# Latitude and Longitude

- Latitude and longitude make up the coordinates used to map the specimen
- Some labels may provide coordinates or coordinate systems such as UTM that need to be converted
- For the SERNEC map view to display, the latitude and longitude need to be in decimal degrees in WGS84



# Latitude and Longitude

- If Verbatim Coordinates are provided and they are in decimal degrees copy them into the Latitude and Longitude fields
- Otherwise leave coordinates in verbatim coordinates
- Examples:

recently acquired by SC DNR. Liberty Hill Tract; 34.473800N, -80.859338W; elev. 405'.



Latitude	Longitude
34.4738	-80.859338

Road, 2 air miles east of downtown Antioch. 34.2365° -80.4387°.



Latitude	Longitude
34.2365	-80.4387

at riprap adjacent to gravel road; Ephriam Branch along Old Edgefield Road, 6.1 air miles ESE of downtown Kirksey; 33.993039° -81.942936°.



Latitude	Longitude
33.993039	-81.942936

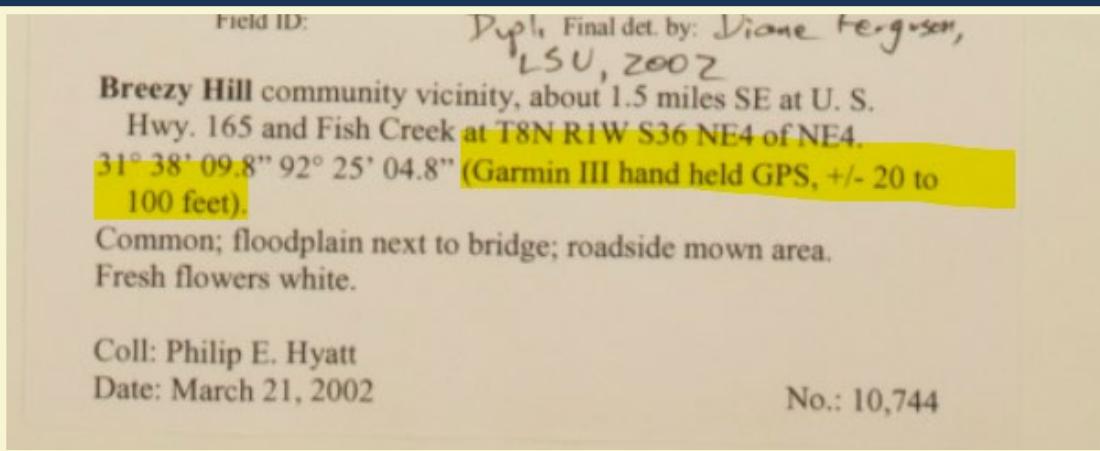


# Uncertainty

- The accuracy of the georeference coordinates in meters (numeric value only). This is measured as the radius of a circle where the true point would be found if known. If coordinates are collected using a GPS, then the accuracy would be the error found within the GPS unit (usually around 10m). (from Symbiota Docs)
- Most labels won't have this
- Only enter if it is provided on the label
- It should be located near the coordinates
- If a range is provided, choose the higher end of the range



# Uncertainty: Examples



The uncertainty is a range between 20 to 100 feet. Use the maximum for the uncertainty. Also, it needs to be converted to meters, so the uncertainty for this label is 30 meters.

*Uncertainty: 30*

Northern Sierra Nevada Mountains: Wright's Lake Road, 0.4 mile east of its junction with Ice House Road, c. 1.3 miles north of Ice House Store (Riverton 7.5' Q: 38°50'19"N, 120°22'34"W, ±1000m). Alt.: 1660m/5445ft. Open, disturbed soil in pine forest Area covered with small plants such as *Lotus purshianus* and *Allophylum integrifolium*.

Scarce in a small depression, recently wet.

The uncertainty is provided: 1000 meters.

*Uncertainty: 1000*



# Datum

- Spatial reference system of the coordinates
- Mainly important for coordinates collected by the collector because depending on their method and equipment there can be a measurable difference between NAD27, NAD83, and WGS84
- If it's provided on the label, enter it in the field, otherwise leave blank



# Datum: Examples

Collected along powerline cut in wet depression (NAD 27  
UTM 17 - 659993E & 3735280N)  
Bert Pittman 08230606                    23 August 2006  
Ann Darr 3036  
Kathy Boyle  
South Carolina Heritage Trust Program

*Datum: NAD27*

Castilleja miniata Douglas ex Hook.  
Shoshone Co., Idaho: Off of Interstate Hwy. 90 at Exit 64 - Golaconda District, ca. 4 miles east of Wallace.  
Elev. 894 m.  
N 47.47413° W 115.87053°                    WGS84  
Bracts scarlet.  
Associated taxa: *Leucanthemum*, *Trifolium*, *Juncus*,  
*Abies*, *Pinus*, *Phleum*.  
Richard R. Halse 8290                            31 July 2011

*Datum: WGS84*

*Stachys pilosa* Nutt.  
BOONE COUNTY: T84N R25W SW ¼ Sec. 30. Elev. 346 m, 42.051580°N Lat., -93.811186°W Long. (NAD83).  
Located 3.50 miles east, southeast of Boone along RR right of way on north side of 210<sup>th</sup> Street. Wet, prairie remnant. Growing in association with *Asclepias incarnata*, *Liatris pycnostachya*, *Silphium laciniatum*, *Helianthus grosseserratus*, *Verbena hastata*, *Vernonia fasciculata*, and *Carex* spp. Specimen sampled near peak flowering. Pubescence on stems and leaves. Localized population.

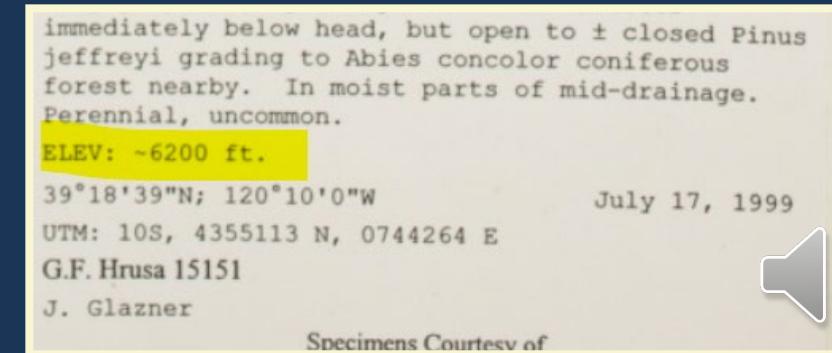
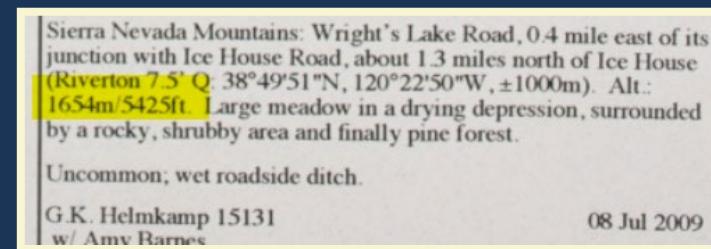
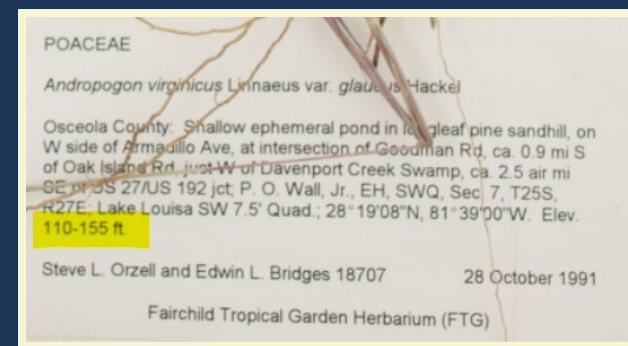
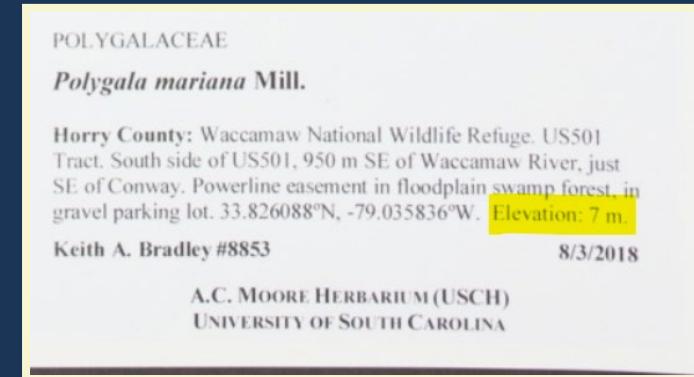
*Datum: NAD83*



# Verbatim Elevation

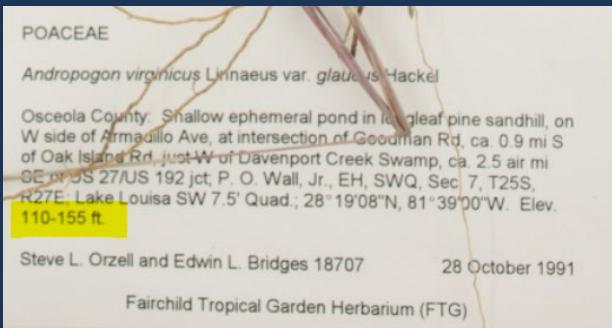
- Verbatim elevation is the elevation provided by the collector on the label.
- Collectors will sometimes refer to elevation as “Elev” which is short for elevation or “Alt” which is short for altitude.
- They may provide the elevation in meters or feet and might provide a range instead of a single number.

Z/U, ROCK Bluff / S Quad., NEQ, NEQ, NEQ, SE  
30°36'15" N; 84°55'13" W Elev. 60-170 ft

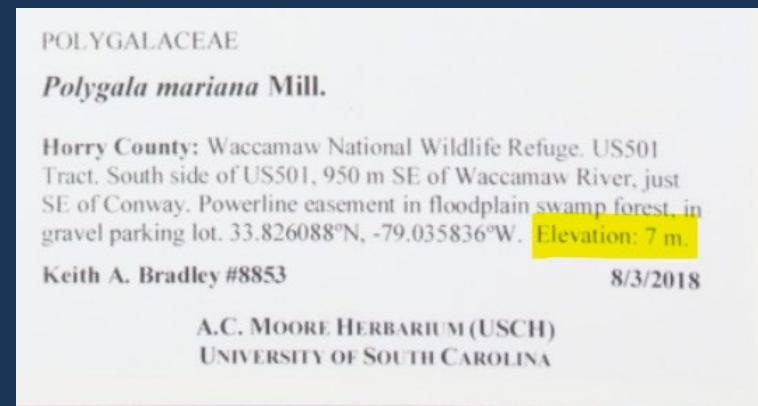


# Verbatim Elevation: Examples

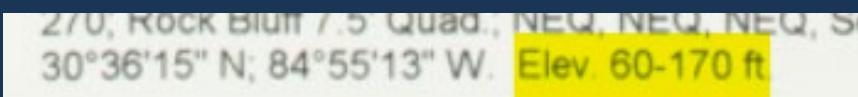
- Write the elevation as it appears into the verbatim elevation field.
- It's okay if it does not carry over.



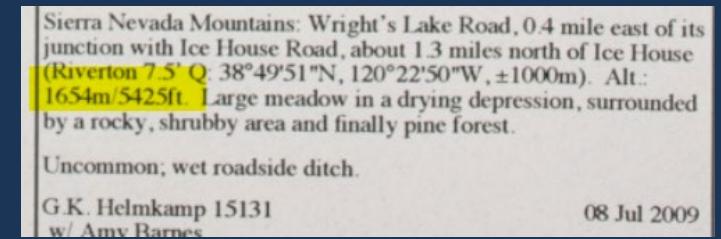
Verbatim Elevation: 110-115 ft.



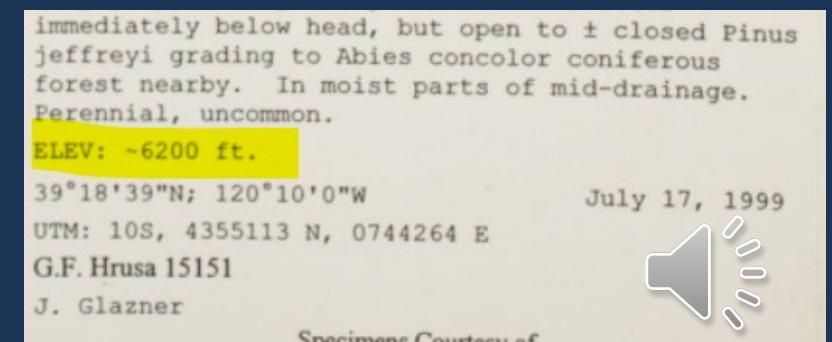
Verbatim Elevation: 7 m



Verbatim Elevation: 60-170 ft



Verbatim Elevation:  
1654m/5425ft



# Elevation Not Letting Record Save

- There is a known issue in which Specify put the converted elevations into the maximum elevation, but SERNEC will not let the record be saved. A minimum elevation only can be saved but not a maximum elevation only.
- If this happens, empty the elevations fields, and write the verbatim elevation into the verbatim elevation field and save.

Locality ?  
Ocmulgee Mounds National Historical Park

Security: Security not applied ?

Latitude      Longitude      Uncertainty ?  
32.8378      -83.6004      20  C F 

Datum ?

Elevation in Meters ?      Verbatim Elevation ?      Depth in Meters ?  
 - 284 <<   
 -



This will cause an error that will not let you save the record.

L.C. Moore Herbarium  
University of South Carolina

Cyperaceae

BIBB COUNTY: Ocmulgee National Monument; 1.7 miles east of downtown Macon; 32.8431°N -83.6040°W. 368' elev. north side of main headquarters building on Ocmulgee National Park Road; lawn in partial shade of loblolly pines; in clumps, from stout rhizomes.

John B. Nelson 23646      4 IV 2003



Security: Security not applied ?

Latitude      Longitude      Uncertainty ?  
32.8378      -83.6004      20 

Elevation in Meters ?      Verbatim Elevation ?  
112 -  << 368'



# Verbatim Depth

- Depth of the water that the plant was collected in
- Depth is the distance from the surface of the water to the bottom of the body of water.
- The verbatim depth is the depth as it is written on the label.

at S margin of high pond; in area with 4"-6" of standing water and no live or dead

**BARNWELL COUNTY:** Frequent patches rooted in about 1m of quiet water, branches totally submerged; with *Nymphaea odorata*,

... flowing and often is, but it is very shallow. Average depth in the area of the collection is approximately one foot; immediately east of (behind) the North Fifty-two Square Shopping Center



# Verbatim Depth: Examples

at S margin of high pond; in area with 4"-6" of standing water and no live or dead

*Verbatim Depth: 4"-6"*

**BARNWELL COUNTY:** Frequent patches rooted in about 1m of quiet water, branches totally submersed; with *Nymphaea odorata*,

*Verbatim Depth: 1m*

growing commonly in sunny areas. The water was flowing and often is, but it is very shallow. Average depth in the area of the collection is approximately one foot; immediately east of (behind) the North Fifty-two Square Shopping Center

*Verbatim Depth: one foot*



# Miscellaneous Fields

— Misc —

Habitat ?

Substrate ?

Associated Taxa ?  
 

Description ?

Notes (Occurrence Remarks) ?  
 

Life Stage ?  Sex ?  Individual Count ?  Sampling Protocol ?  Preparations ?

Phenology ?  Establishment Means ?   Cultivated/Captive

We will address:

- Habitat
- Substrate
- Associated Taxa
- Description

- Phenology

[Return to Field List](#)



# General Formatting

- All fields should be treated as “sentences” **EXCEPT** for Associated Taxa.
- Capitalize the beginning and add punctuation.
- Repetition is *okay*. There are some parts of the label that can be in multiple fields.
- Ex. Substrate comments can go in both habitat and substrate
- If you know what the abbreviation is write it out in brackets, *especially* if it is not obvious.
  - Ex. Found along RR. -> Found along RR [railroad tracks].



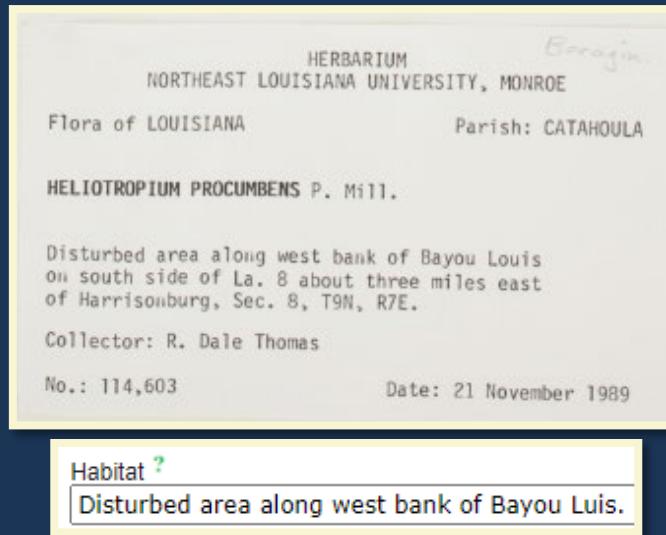
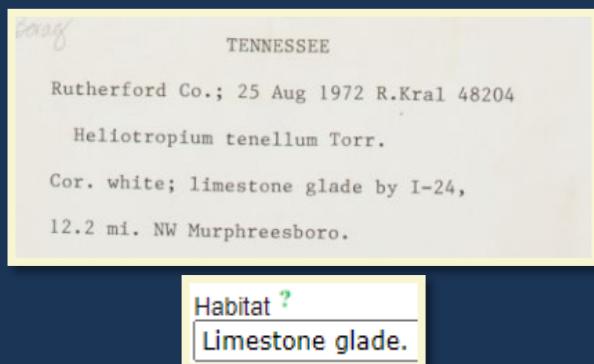
# Habitat Data Standards

- Full sentences.
- Capitalize the beginning, use punctuation, and include a period at the end.
- Repetition is *okay*. There are some parts of the label that can be in multiple fields.
- If you know what the abbreviation is write it out in brackets, *especially* if it is not obvious.



# Habitat

- The Habitat field describes the *collection site*.
- Ex. Shaded woods, moist bog, clear-cut field, roadside, etc.
- **We also include associated taxa 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 go in the Habitat field as well.

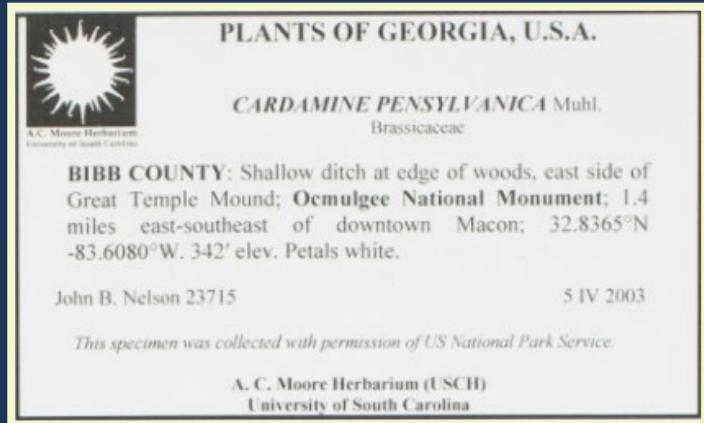


[Return to Field List](#)

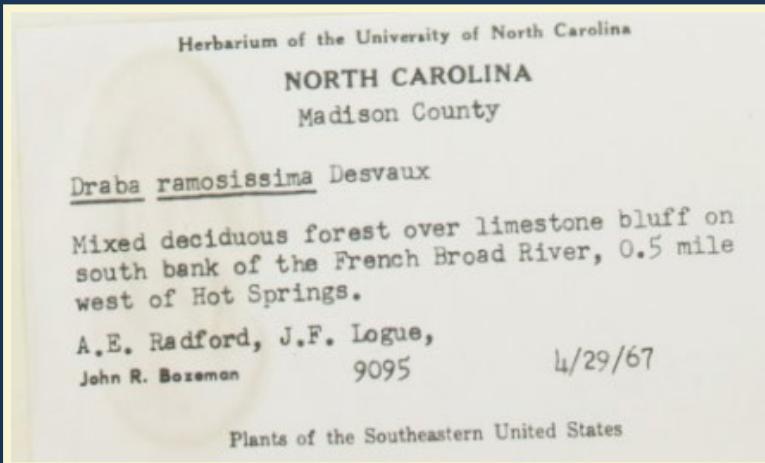
[Return to Miscellaneous](#)



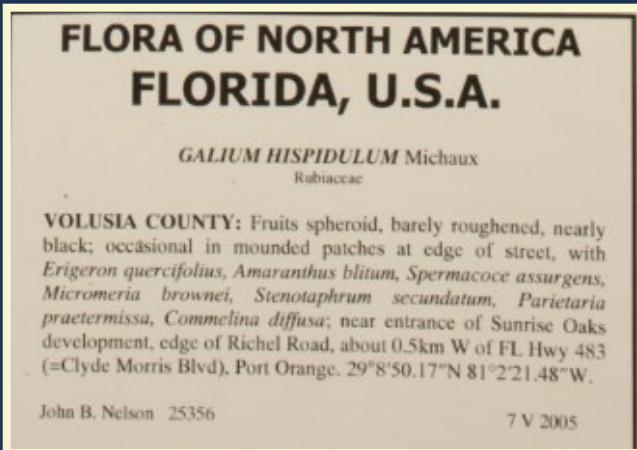
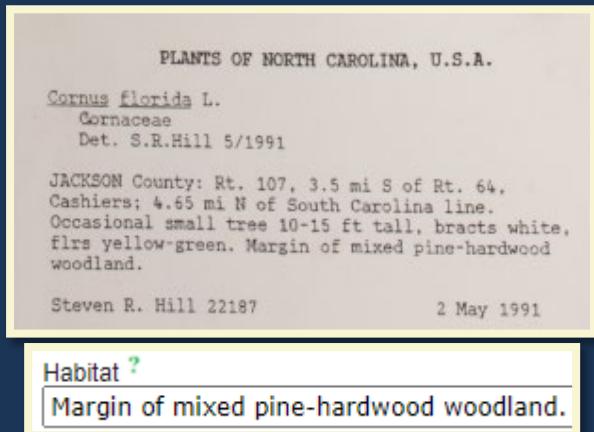
# Habitat: Examples



Habitat ?  
Shallow ditch at edge of woods, east side of Great Temple Mound.



Habitat ?  
Mixed deciduous forest over limestone bluff on south bank of the French Broad River.



Habitat ?  
Occasional in mounded patches at edge of street, with *Erigeron quercifolius*, *Amaranthus blitum*, *Spermacoce assurg*



The entry for the Habitat field is cut off in this screenshot due to the box length. The full entry is: "Occasional in mounded patches at edge of street, with *Erigeron quercifolius*, *Amaranthus blitum*, *Spermacoce assurgens*, *Micromeria brownei*, *Stenotaphrum secundatum*, *Parietaria praetermissa*, *Commelina diffusa*; near entrance of Sunrise Oaks development, edge of Richel Road, about 0.5km W of FL Hwy 483 (=Clyde Morris Blvd), Port Orange. 29°8'50.17"N 81°2'21.48"W."

[Return to Field List](#)

[Return to Miscellaneous](#)



# Habitat: Examples

**PLANTS OF SAVAGE BAY HERITAGE PRESERVE  
SOUTH CAROLINA, U.S.A.**

**PLANTS OF SOUTH CAROLINA**  
**SALUDA COUNTY**

## Habitat?

Found in disturbed sandy / rocky ground near roadside, especially near drainage ditch, on western edge of preserve.

## Habitat ?

Infrequent at edge of flooded Carolina bay, with *Rhynchospora inundata*; surrounded by peach orchards.

University of South Carolina Herbarium  
FLORA OF SOUTH CAROLINA



 The entry for the Habitat field is cut off in this screenshot due to the box length. The full entry is: "200 yards east of the work shed; elevation 1280 feet; 65% crown closure; 26% slope; west aspect; community: loblolly pine-mixed hardwoods."

[Return to Field List](#)

## [Return to Miscellaneous](#)



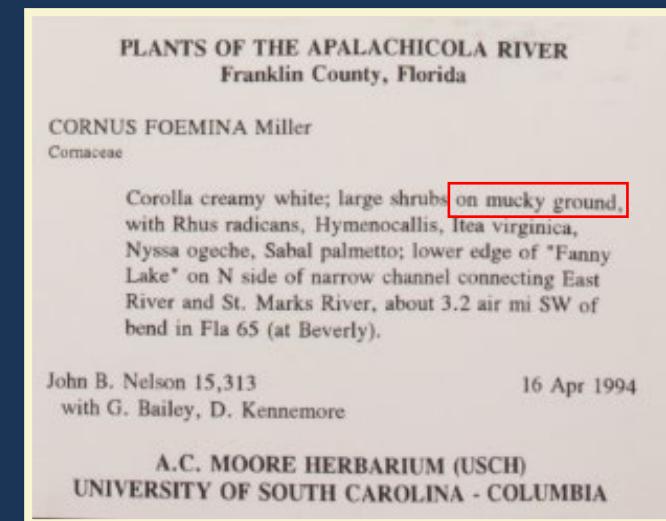
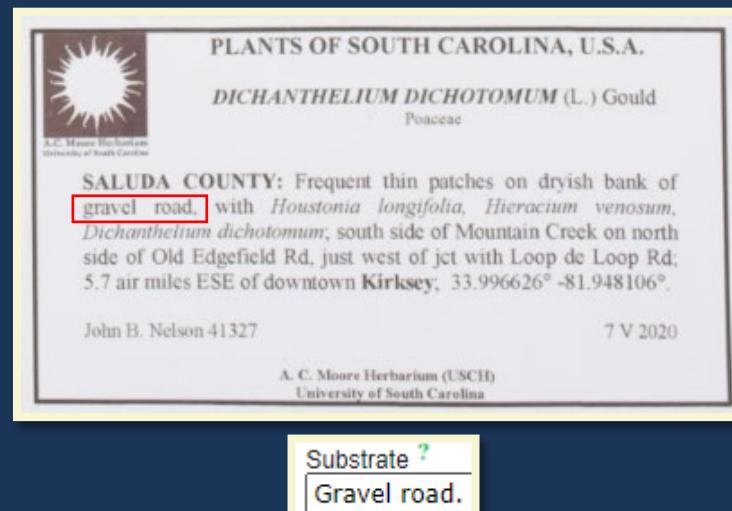
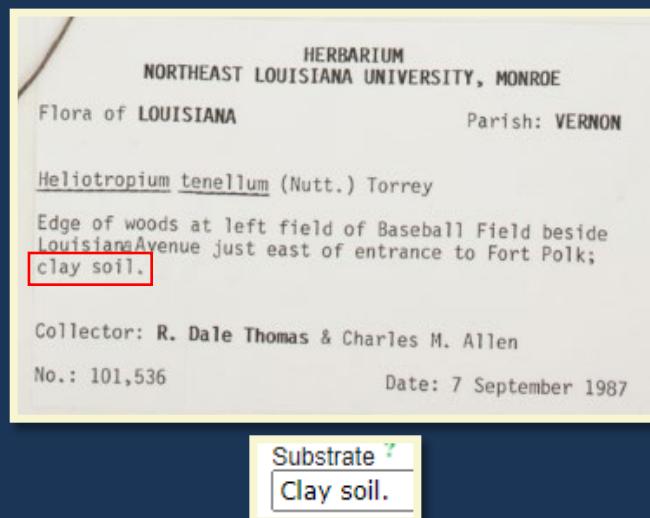
# Substrate Data Standards

- Full sentences.
- Capitalize the beginning and add punctuation.



# 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.

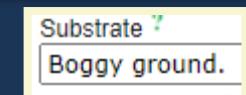
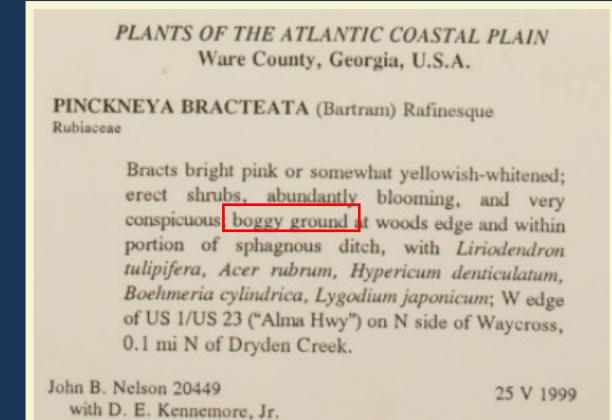
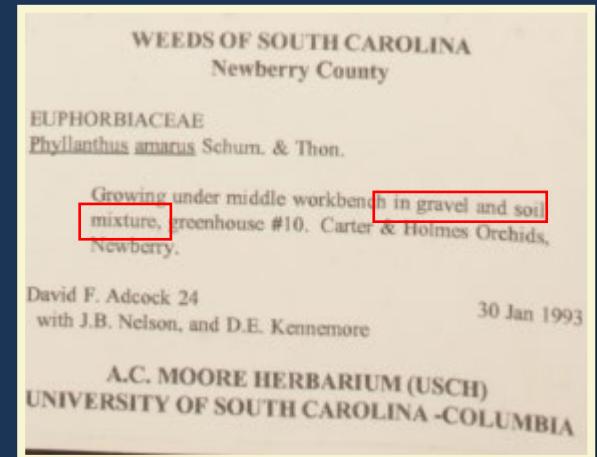
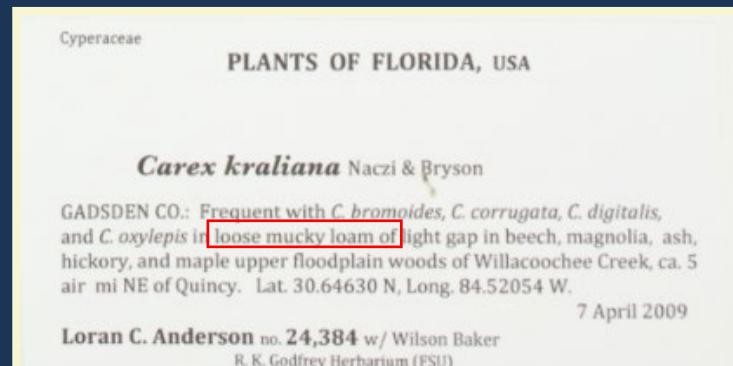
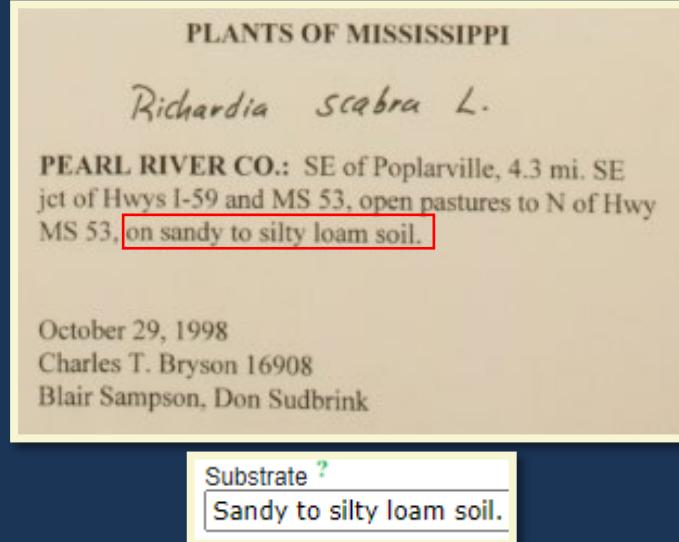
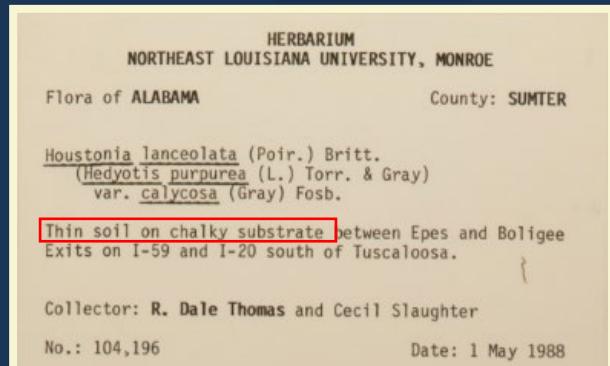
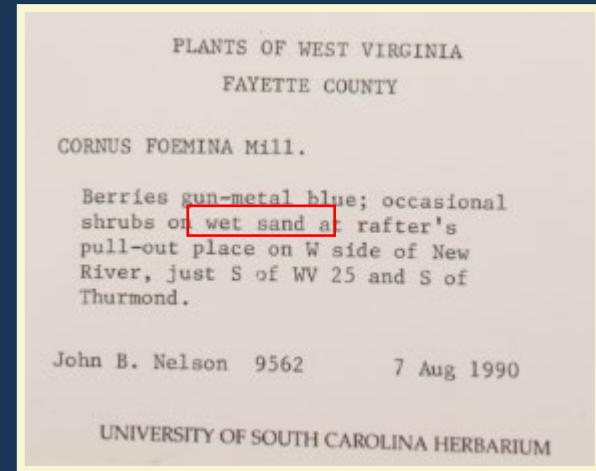


[Return to Field List](#)

## Return to Miscellaneous



# Substrate: Examples



[Return to Field List](#)

[Return to Miscellaneous](#)



# 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

- Associated Taxa are those that are found along with the collected specimen within the habitat.

\*Not all associated taxa may be included in the same sentence or part of the label – read the label carefully to be sure you have entered everything. See the next few slides for examples.

- May include a genus and species, a genus only, or common names in place of scientific names. Scientific names are commonly written in italics with the genus capitalized.

\* If you encounter common names, these are *not* included in the Associated Taxa field.

- When you begin typing a scientific name, a drop-down list will formulate with suggestions.
- You can select the correct scientific name from the list to avoid spelling errors but be sure that you ***double check afterwards*** that you selected the correct name!

Associated Taxa ?

Aster

- Aster
- Aster abatus
- Aster abyssinicus
- Aster acadiensis
- Aster acris
- Aster acuminatus
- Aster acuminatus var. acuminatus
- Aster acuminatus var. magdalenensis

Associated Taxa ?

Aster al

- Aster albanicus
- Aster albescens
- Aster albescens var. levissimus
- Aster alpicola
- Aster alpigenus
- Aster alpigenus subsp. alpigenus
- Aster alpigenus subsp. andersonii



# Abbreviated Genus

- Collectors will sometimes abbreviate the genus
- Only done when multiple of the genus is mentioned
- Look for the preceding scientific name to figure out the genus
- Write the abbreviated name as it appears in Habitat
- Spell out the genus in associated taxa

**Habitat** Open mown roadsides with *Kummerowia* sp., *Rubus* sp., *Lespedeza cuneata*, *Andropogon virginicus*, *Aster dumosus*, *A. pilosus*, *Chrysopsis mariana*, *Lobelia puberula*, *Solidago erecta*, *Cyperus strigosus*, *Microstegium vimineum*, *Aplos americana*, *Eupatorium* spp., *Boehmeria cylindrica*. Common in a number of colonies. Not found along tributary creeks.

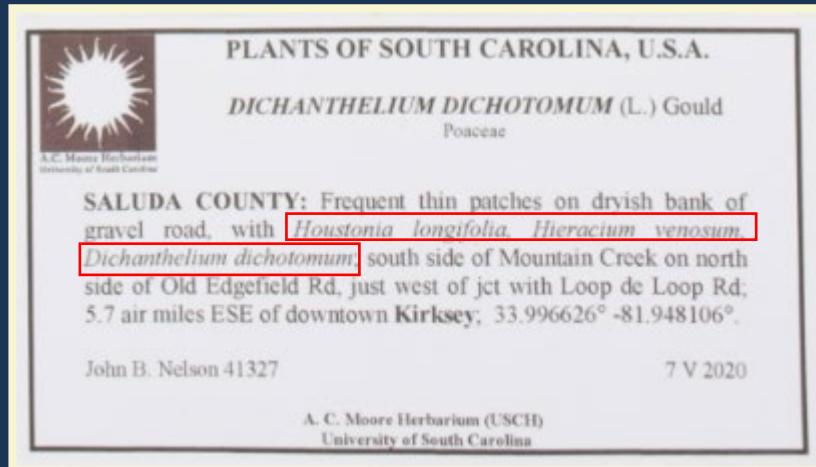
Habitat ?  
via sp., *Rubus* sp., *Lespedeza cuneata*, *Andropogon virginicus*, *Aster dumosus*, *A. pilosus*, *Chrysopsis mariana*, *Lobell*

Substrate ?

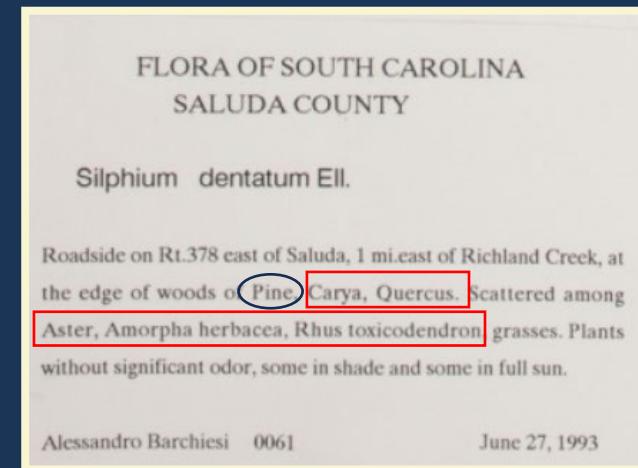
Associated Taxa ?  
*Kummerowia*, *Rubus*, *Lespedeza cuneata*, *Andropogon virginicus*, *Aster dumosus*, *Aster pilosus*, *Chrysopsis mariana*, *Lobelia puberula*, *Solidago erecta*, *Cyperus strigosus*, *Microstegium vimineum*, *Aplos americana*, *Eupatorium*, *Boehmeria cylindrica*



# Associated Taxa: Examples



Associated Taxa ?  
Houstonia longifolia, Hieracium venosum, *Dichanthelium dichotomum*



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



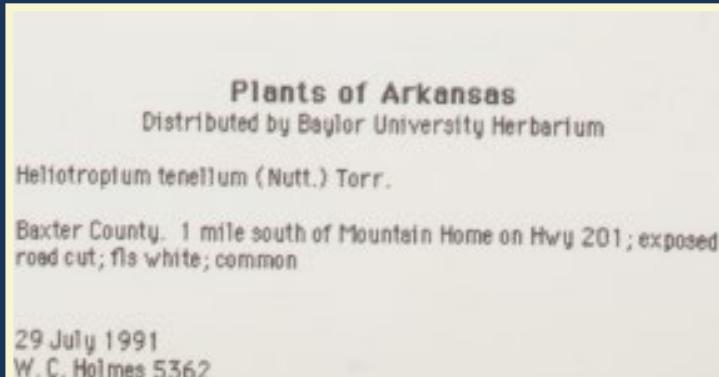
\*Ignore "Pine" for the Associated Taxa field because Pine is a common name, not scientific.



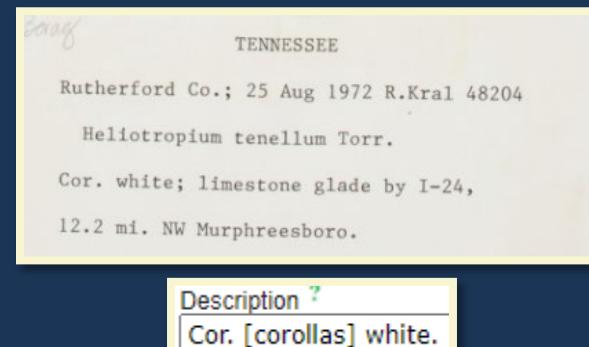
# Description

\*If you come across abbreviations that you are unfamiliar with, this may be helpful:  
[https://www.nybg.org/bsci/brit/pdf/Brittonia\\_Abbreviations.pdf](https://www.nybg.org/bsci/brit/pdf/Brittonia_Abbreviations.pdf)

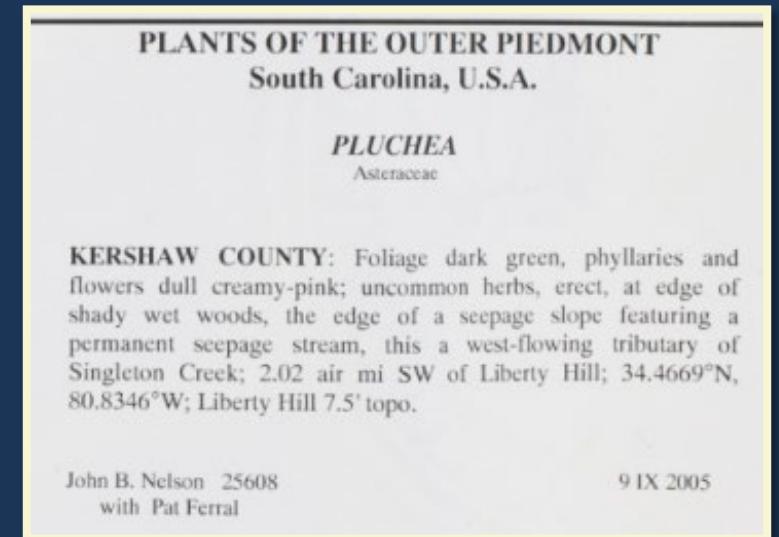
- The Description field is used to describe the specimen's physical characteristics.
    - Numerical values may also be included, such as the height of the plant.
- \*If abbreviations are used, write out the meaning in brackets.**
- Ex. dbh [diameter at breast height] 2' [feet].



Description ?  
Fls [flowers] white; common.



Description ?  
Cor. [corollas] white.



Description ?  
Foliage dark green, phyllaries and flowers dull creamy-pink; uncommon herbs, erect,



# Description: Examples

# PLANTS OF THE SOUTHEASTERN U.S.A.

## Woodstock, Virginia

## Description

1-2 foot tall, erect to ascending, leaves soft and hairy, Corolla blue-violet.

**PLANTS OF GEORGIA, U.S.A.**

**CAMPsis RADICANS** (L.) Seem.  
Poaceae

**BIBB COUNTY: Ocmulgee National Monument;** 1.6 miles east of downtown Macon; 32.8360°N -83.6067°W. 278' elev. south side of open pond along Opeloufa Trail; vigorously climbing; corollas bright red-orange; calyx brick-red.

John B. Nelson 22975      23 VII 2002

*This specimen was collected with permission of US National Park Service.*

## Description ?

Vigorously climbing; corollas bright red-orange; calyx brick-red

1-2 foot tall, erect to ascending, leaves soft and hairy. Corolla blue-violet

PLANTS OF NORTH CAROLINA, U.S.A.

### Description ?

Occasional small tree 10-15 ft tall, bracts white, flrs [flowers] yellow-green

**PLANTS OF SAVAGE BAY HERITAGE PRESERVE  
SOUTH CAROLINA, U.S.A.**

Hypericum J Nelson 23 VI 08

**KERSHAW COUNTY:** Grassy... tiny yellow flowers arising from a single stem; quite abundant, found in disturbed sandy / rocky ground near roadside, especially near drainage ditch, on western edge of preserve.

C. Judd Wood 40 3 VIII 2000

Collected with permission of the South Carolina Department of Natural Resources

2

**Description:** Creepy - tiny yellow flowers arising from a single stem; quite abundant



# Phenology

- We currently leave 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	<a href="http://rs.tdwg.org/dwc/terms/reproductiveCondition">http://rs.tdwg.org/dwc/terms/reproductiveCondition</a>
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	<a href="#">non-reproductive</a> <a href="#">pregnant</a> <a href="#">in bloom</a> <a href="#">fruit-bearing</a>

