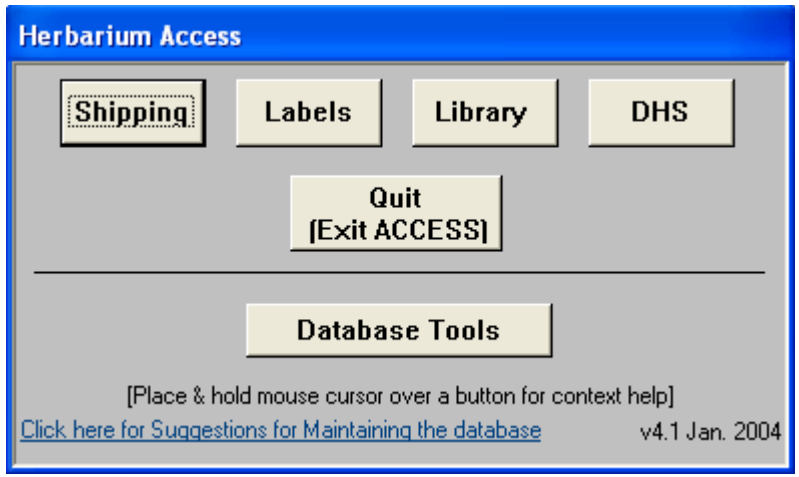
# University of California, Davis
# Herbarium Management Application
# (Microsoft Access)




To learn about how to use a particular feature in the application:
Click on any of the above buttons

# General Label Data Entry Form

**(click here for descriptions of new features not discribed below)**

Taxonomic data Entry:
1). Select Family name.
2) After selecting Family, The Genera lists only those genera within selected family.

Geographic coordinate data:
- Enter latitude & longitude data
- Additionally, you can enter USGS or UTM

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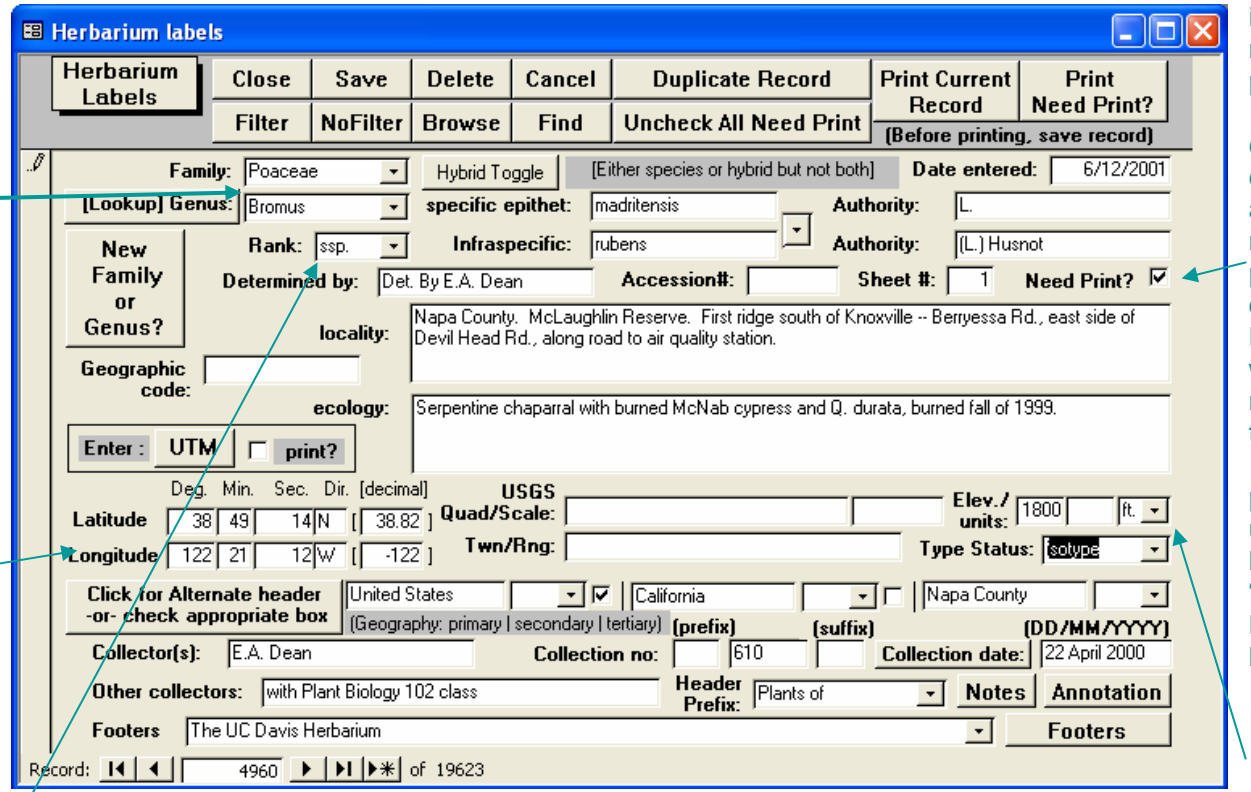
Click here for details about entering Geo-Political information.




This check indicates that this record will be printed.

After completing data entry for one to any number of records, you can print by clicking on the "Print Need Print?" button, which will send all records checked to the printer.

After printing, you can un-check all these by clicking on the "Uncheck All Need Print" button.

Elevation:

Enter elevation or a range (lower range/single entry goes into the left text box and upper range goes into the right text box). Select the elevation units from the list box.

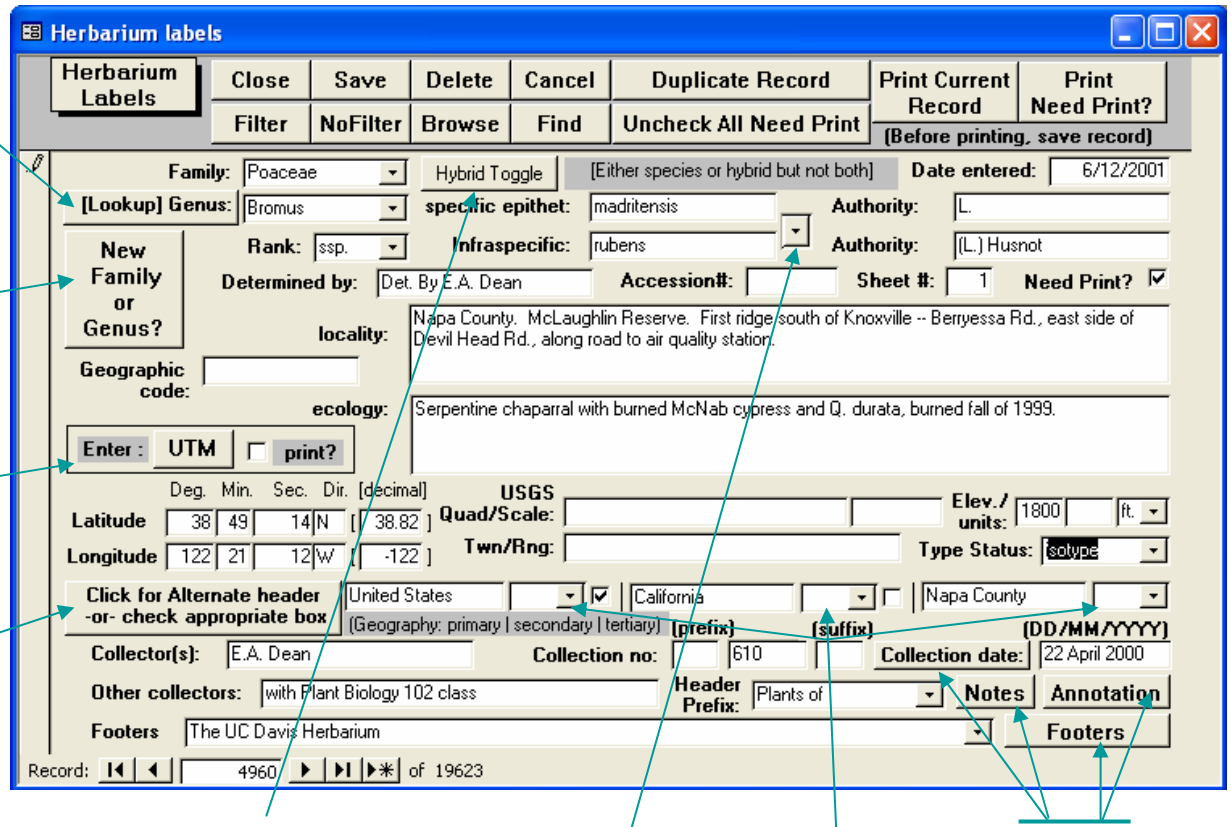
Most of the explanatory text is described to the left of each data entry text box. E.g. Enter specific epithet, rank & Infraspecific data in appropriate text boxes.

(Specific Items are described here or elsewhere in this document)

Click here to learn about this value

**Go Back**

# Information about Special buttons (New to version 4*)




*Click to view and select from all genera

Click to view/edit all genera and families in the database

*Click to view/edit UTM data

*Click to view/edit Alternative Header for label

*Click to toggle form entry for hybrid taxa

*Click to select from list of current database entries for sub-specific taxa

Click to view/edit Collection date, Notes, Annotations, or Footers

Text boxes for Geography Primary, Secondary and Tertiary groupings data entry;
*And alternative list box allows geographic selections for Country, State, and County).

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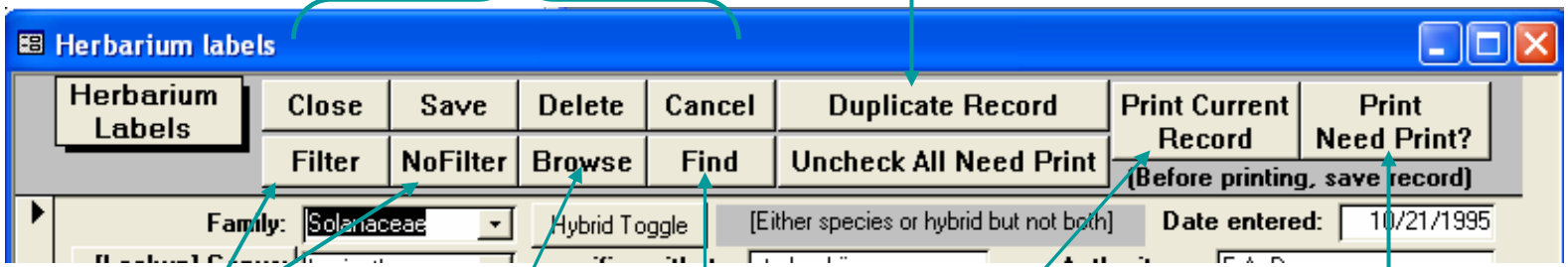
# Information about Top Bar buttons

These are the standard function buttons

Duplicate Record will duplicate the current data entry to a new record. This takes you to the end of the records in the append mode.




Clicking the “Filter” button allows for a quick method to peruse the record data based on filter selection. The “NoFilter” button will then remove all filters.

To apply a filter:
- You must first select any one of the Text Boxes on this data entry form.
-Then click the “Filter” button to apply the filter.

e.g. The Family text box has “Solanaceae” selected. If you clicked on the “Filter” button, then the records will be filter on only those records matching “Solanaceae”.

**** Filters can be applied consecutively to further filter the dataset/records.***

Browse: Allows you to view all records marked/checked for printing.

* To browse all records, select the ALL option
Click here for Browse features

Find: Allows a quick method to search for current selected Text Box entry.

e.g. The Family text box is the current focused text box. If you then clicked “Find”, you are prompted to enter the search string to look for a match to your entry.

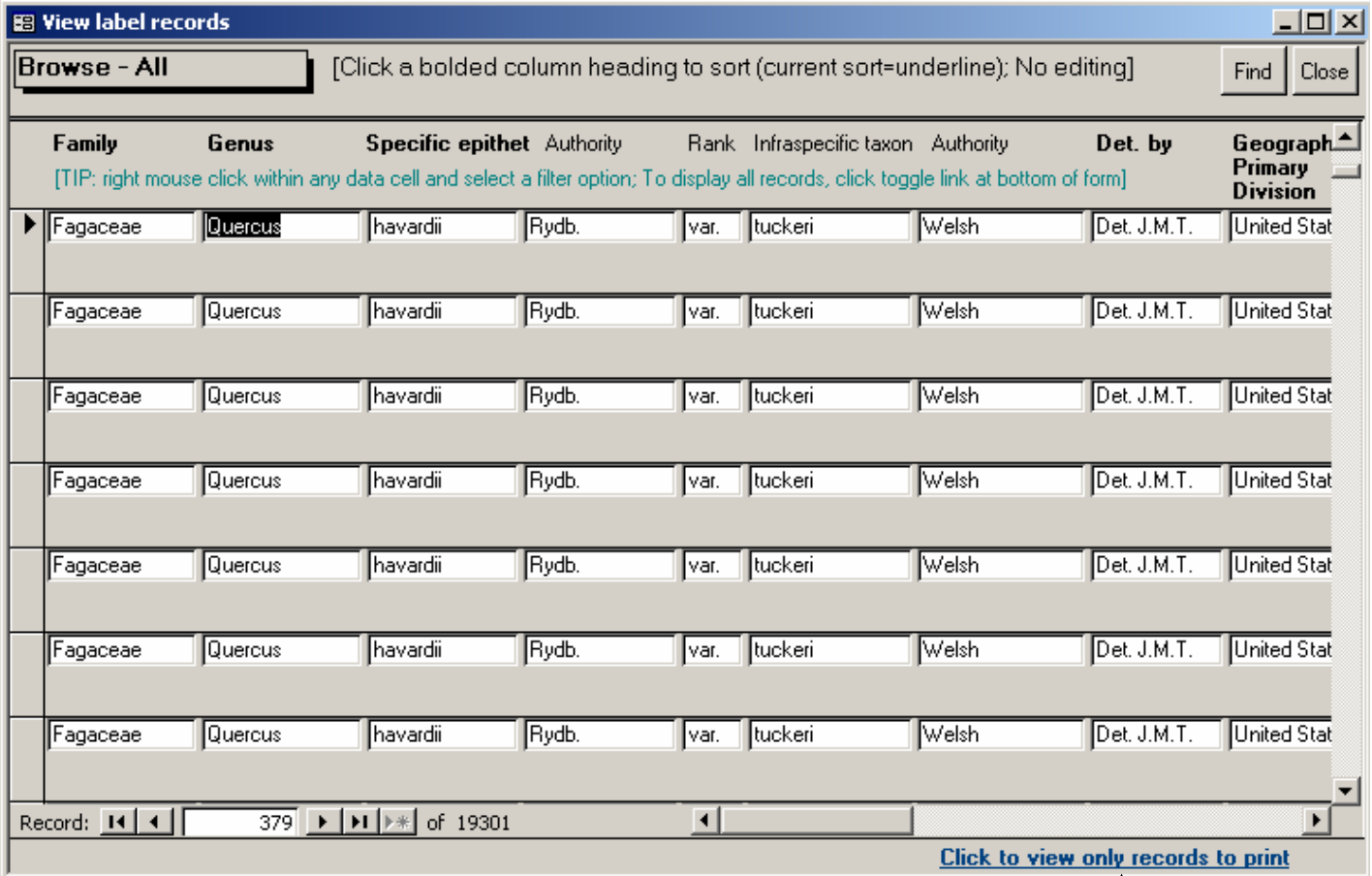
This is the same as using the binocular menu option with the exception of the Taxonomic searches.

Print Current Record: Will print only the current record

Print Need Print?
This brings up a dialog asking to “Print Proofs?”. You can:
Answer “Yes” to print only proof labels (ignores the “Sheet #”, which indicates how many labels to print for a record).
Answer “No” to print all labels, printing the number indicated in the “Sheet #” text box.

**Go Back**

# Browse feature

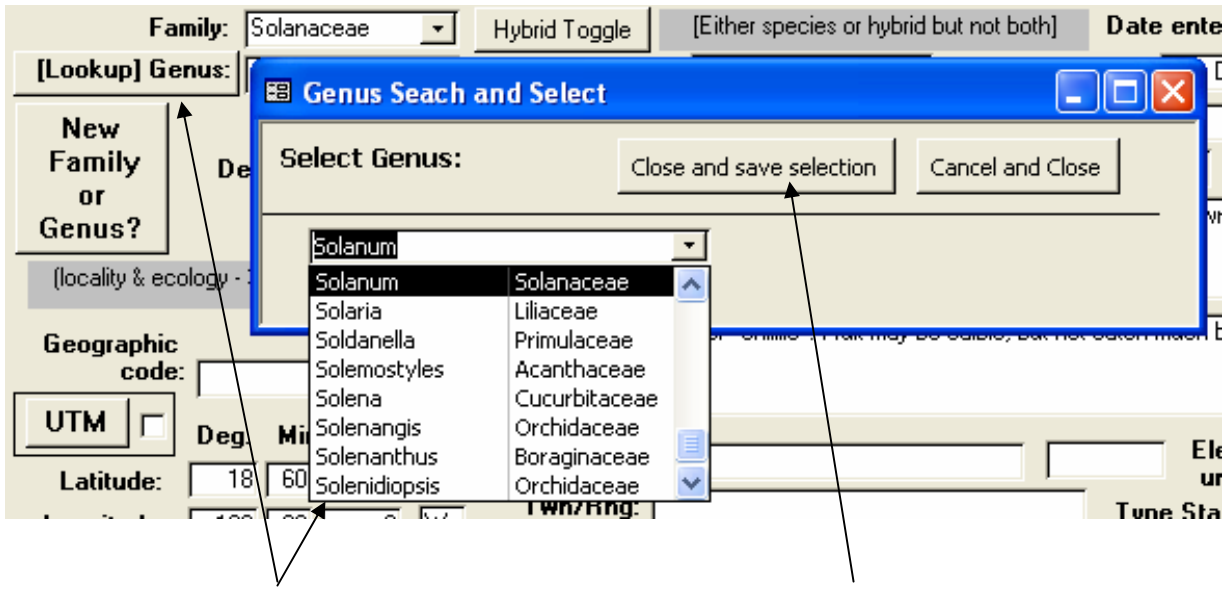



Most of the Access tool bar features are available in this browse mode. E.g. If you right mouse click you can filter based on current cell selection. This is a quick method to view only certain records and get their count, which is displayed along the bottom navigation record bar (here we show 19301 records).

This toggles view between display of all records and those needing print.

Go Back

# Genus Search and Select

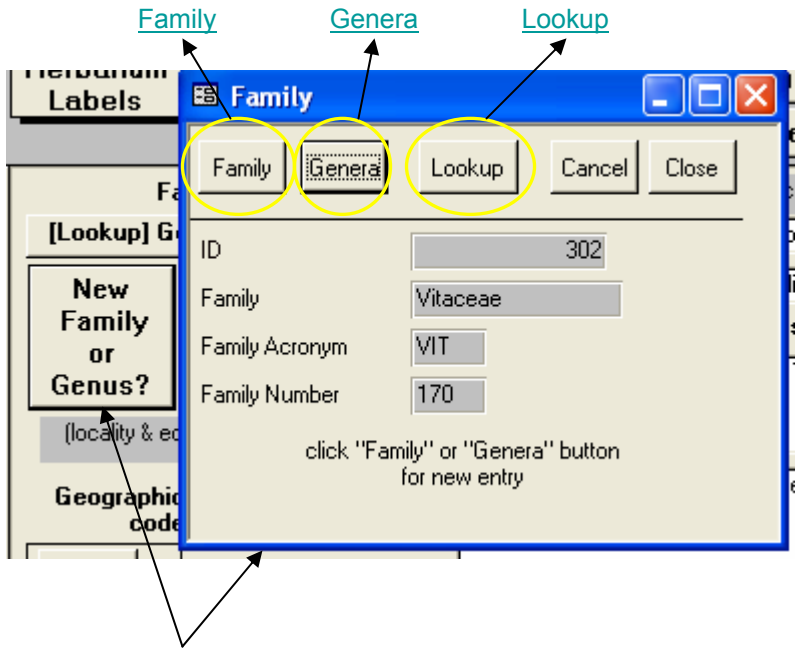



Clicking on “[Lookup] Genus:” displays this dialog allowing you to select from all the genera names in the database, in alphabetical order

Once you select a genus, click “Close and save selection”, which auto-fills the genus name in the label’s form

Go Back

# New Family or Genus? button




Clicking “New Family or Genus?” button brings up options to view and/or edit the taxonomic Families and Genera in the database. Click on any of the above links describing these features.

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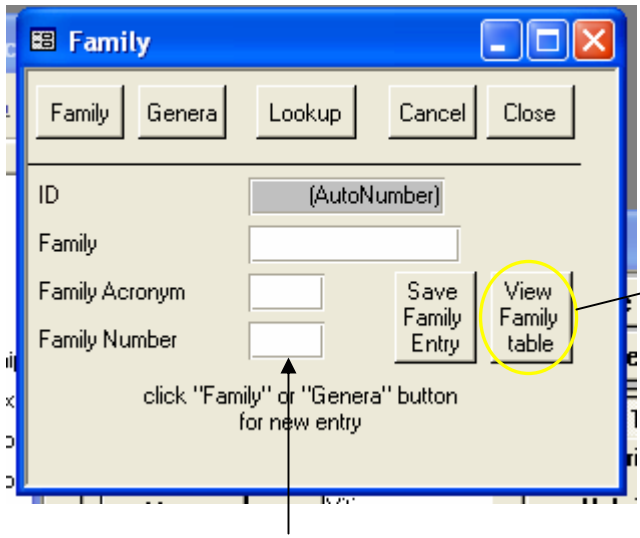
# Family – new entry dialog




Click here for information on this button

Enter the a new “Family” name, “Family Acronym” and a new “Family Number” in each text box. Once completed, then click on the “Save Family Entry button”.

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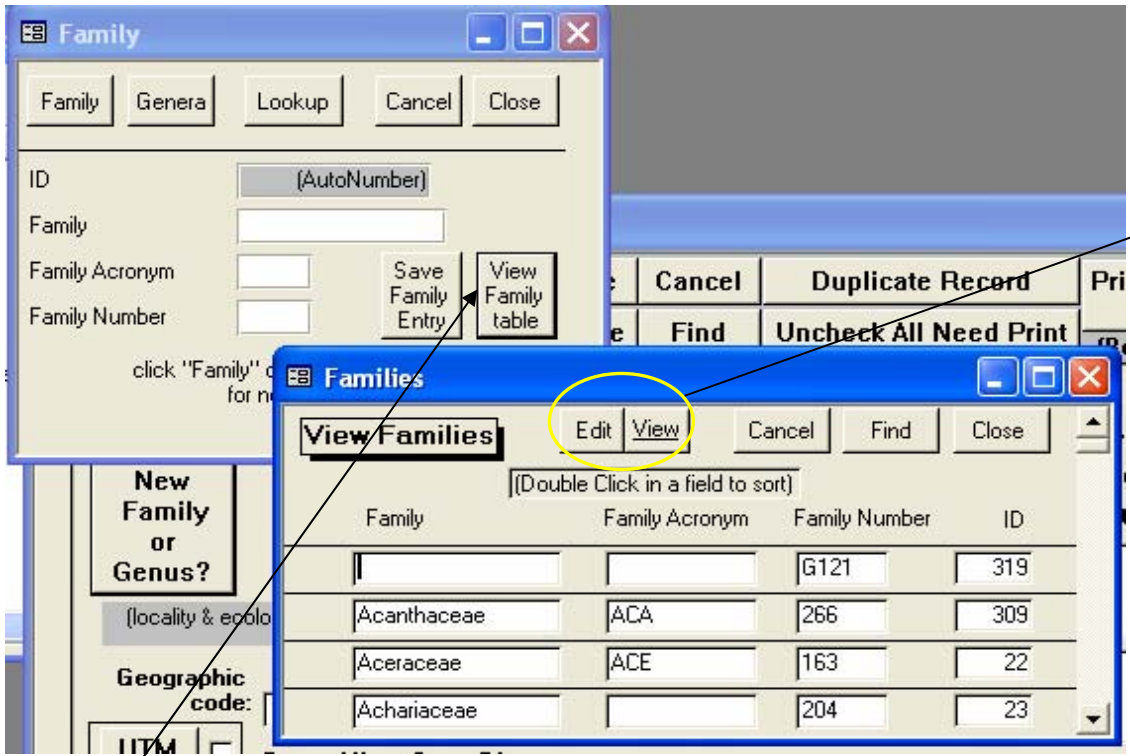
[The original idea for entering “Family Acronym” and “Family Number” was based on use of the **Cronquist System.**
However, you can enter any information into these fields, which must be unique in name and number]

**Go Back**

# View Family table

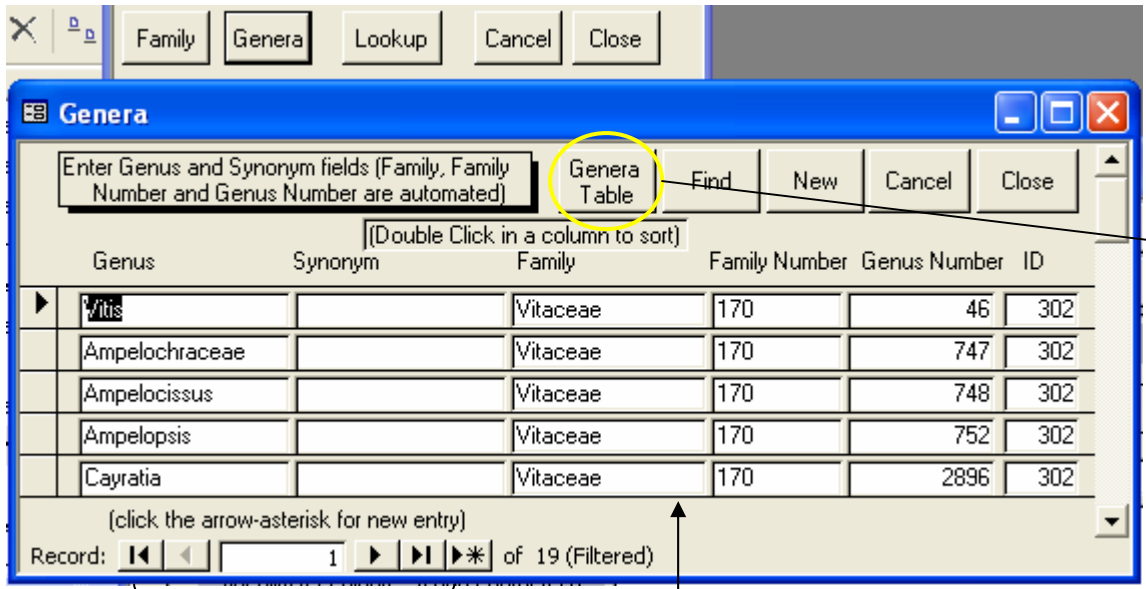



These buttons alternate between view (non-edit mode) and Edit mode, allowing for edits and additions

By clicking the "View Family Table" button, the **View Families** dialog opens, alphabetically listing all families in the database.
[ *This is useful to search and review all the families in the Family table, as each family name must be unique within the database* ]

**Go Back**

# Genera data entry screen for selected Family




Click here for details on this button

[This button will allow you to view all Genera in the database]

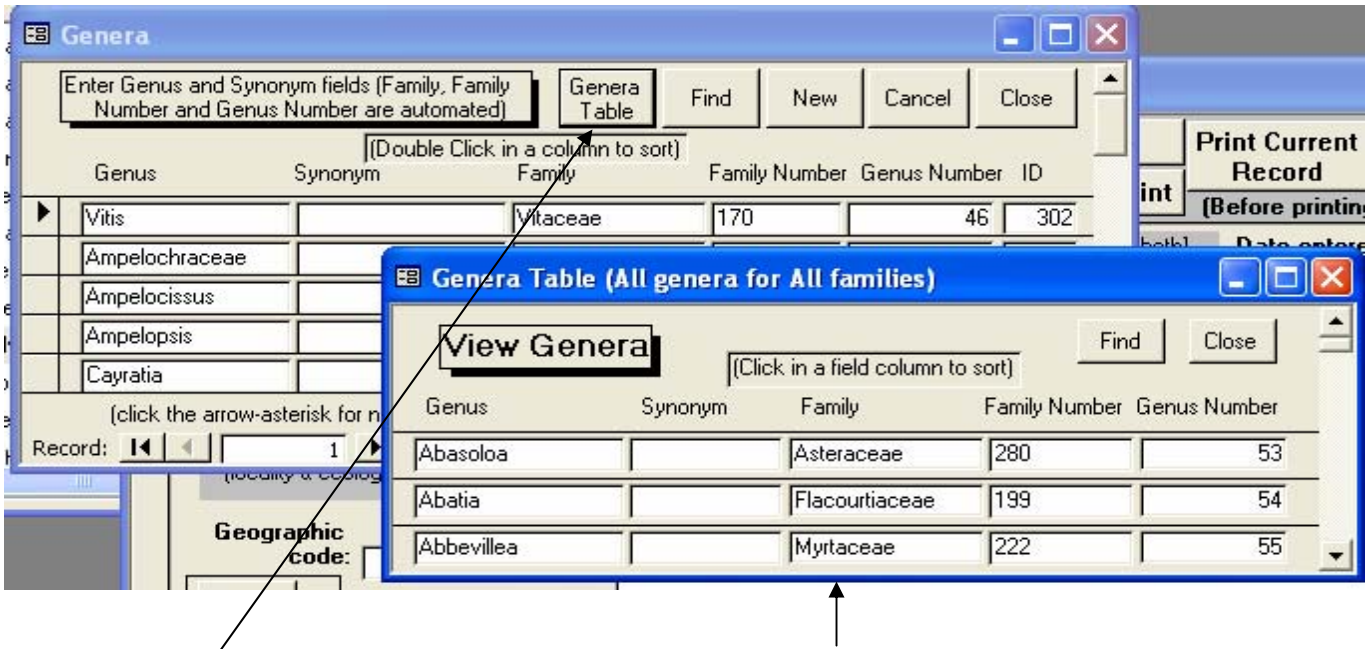
This dialog lists all genera within selected family and also allows you to enter a new Genus (either by clicking on the "New" button, scrolling to the last record entry or using the record selector bars) for the selected Family (*the family selection would have been made from the previous dialog*).

Click on any of the row marker(s) to select row. Once selected you can delete the record(s); E.g. using the Delete key, etc.

You can click within any Genus cell to edit the Genus name. Click within any Family cell to select another Family for the selected Genus. The other column cells cannot be edited. Take caution when editing the Genus and Family, as their referential integrity must be maintained.

**Go Back**

# View Genera Table




By clicking the "Genera Table" button, the **View Genera** dialog opens alphabetically listing all genera in the database.

[ *This is useful to search and review all the genera in the Genera table, as each genus must be unique within a family* ]

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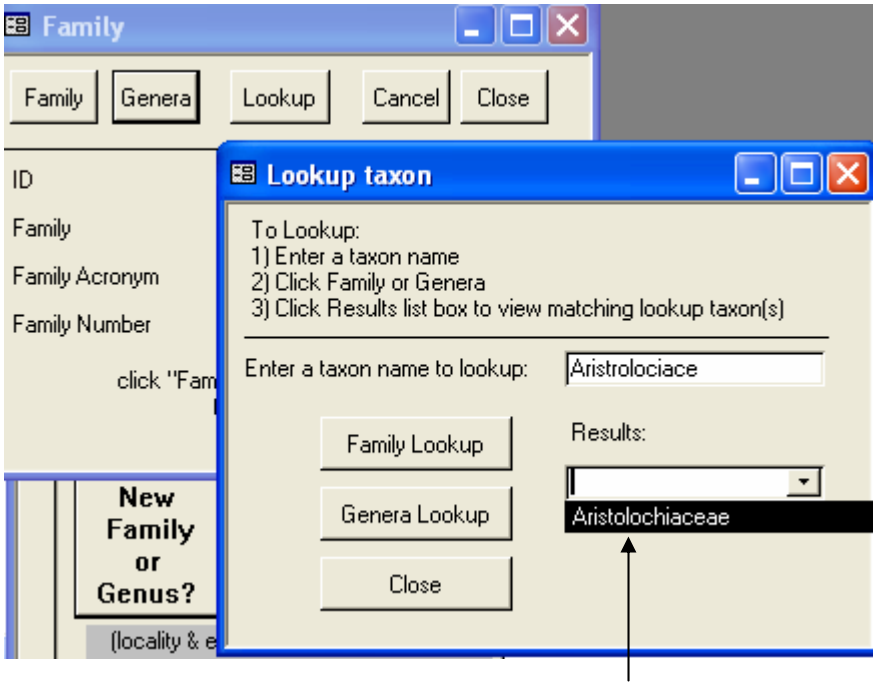
# Lookup dialog




This “Lookup” feature allows you to enter in a Family or Genus name. Then by clicking on the “Family Lookup” or the “Genera Lookup” button, a soundex (based on phonetics) algorithm is run against either the Family or Genera table to find the closest name match(s).

The above example shows an entry of the term “Aristrolociace”, then clicking on the “Family Lookup” button returns the closest Family name matching the term, “Aristolochiaceae”.

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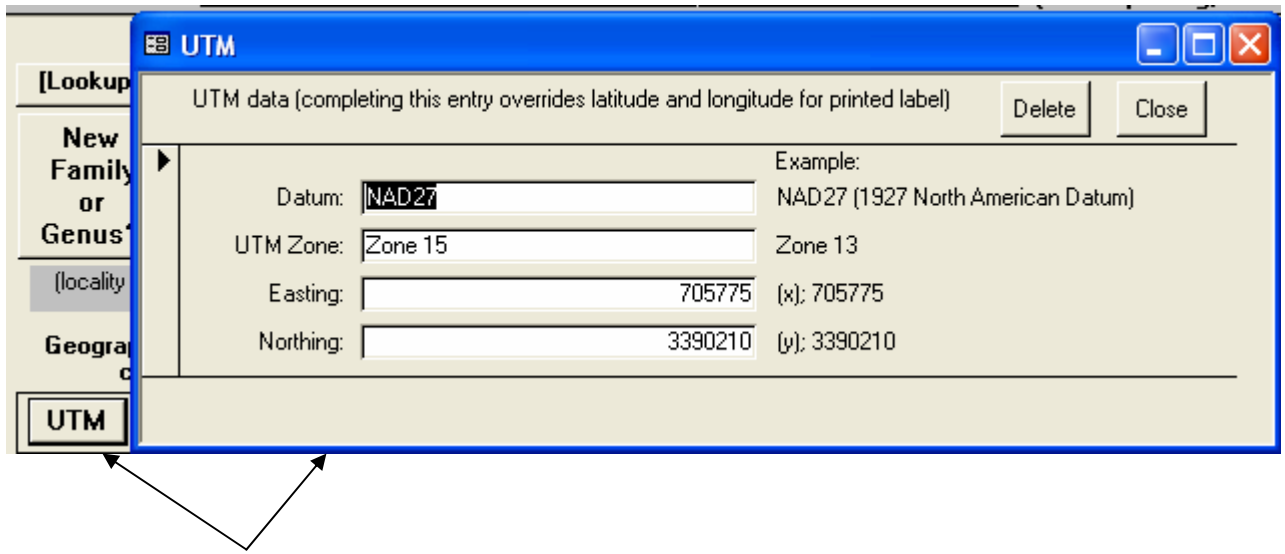
# UTM (Universal Transverse Mercator) button




Click “UTM” button to pop up dialog to enter UTM GIS information

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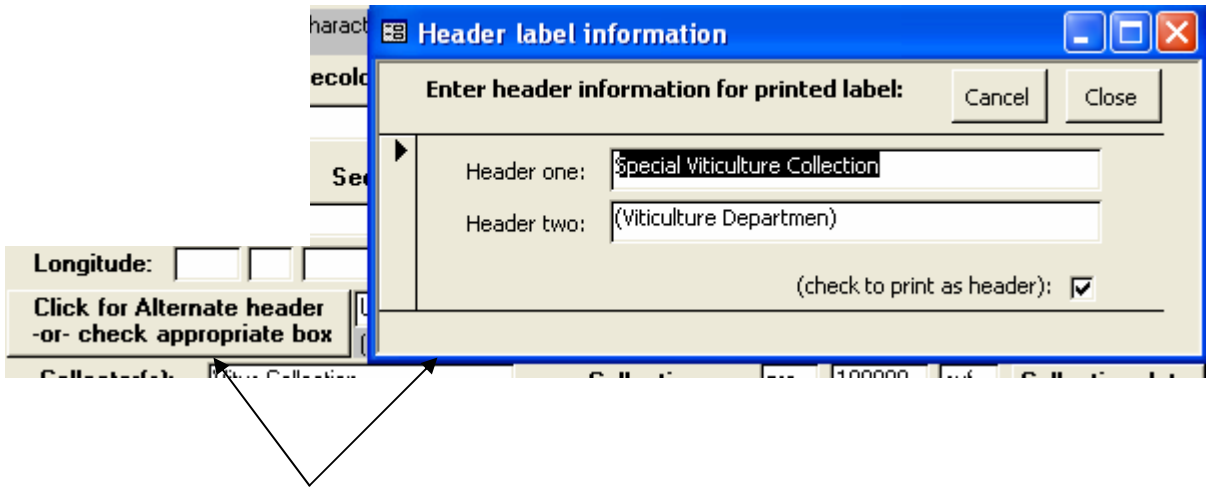
# Alternative Header for Labels




Clicking on this button brings up the Alternative Header dialog. “Header one:” entry prints the primary header and “Header two” entry prints the secondary header for label printing. The “(check to print as header)” checkbox toggles printing of these headers over the Geo-political information entered in the Labels form. By default, the Geo-political information entered in the labels form prints as the label headers

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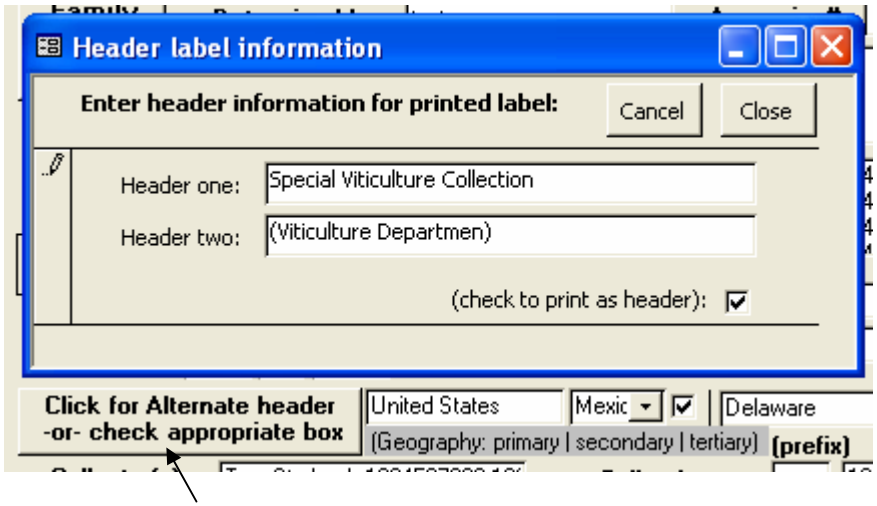
# Alternative Header button




Alternative header button brings up view or editing of label headers. The "(check to print as header):" check box indicates that these data will print rather then the geographic data entry on the main label form.

E.g.
**Special Viticulture Collection**
**(Viticulture Department)**
*will print on the label rather then*
**United States**
**Delaware**

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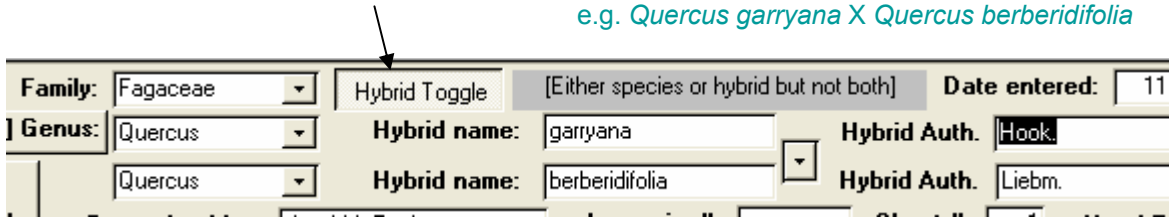
# Hybrid data entry example

When “Hybrid Toggle” button is toggled on (depressed), you can enter the hybrid information. And printing Hybrids takes precedence over normal label printing.

This shows data entry for hybrid:
e.g. *Quercus garryana* X *Quercus berberidifolia*




Hybrid species data entry assumes taxonomic data is complete; Meaning both genera, specific epithet, & authority text boxes must be filled in (labeled “**Hybrid name:**”). Incomplete data entry will result in incorrect printing of labels*. See Label printing which shows two label reports, one for normal species labels and another for hybrid species*.

** Currently, we have not corrected this screen print error; As the user can close out the report without any problems occurring & correct the data entry, if need.*

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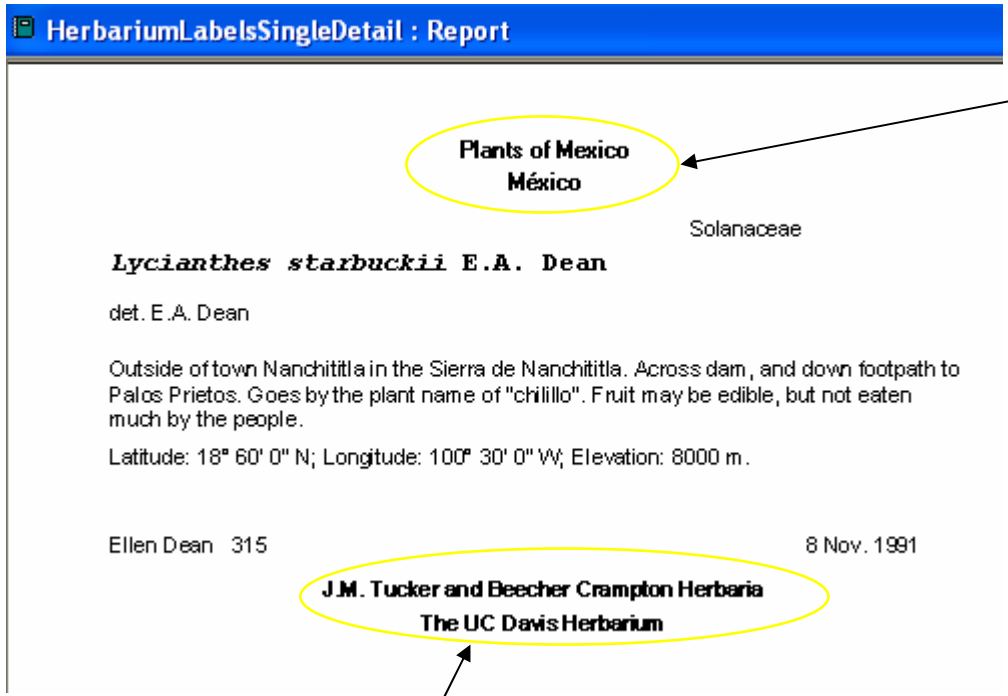
# Printed Label sample




Header

Footer

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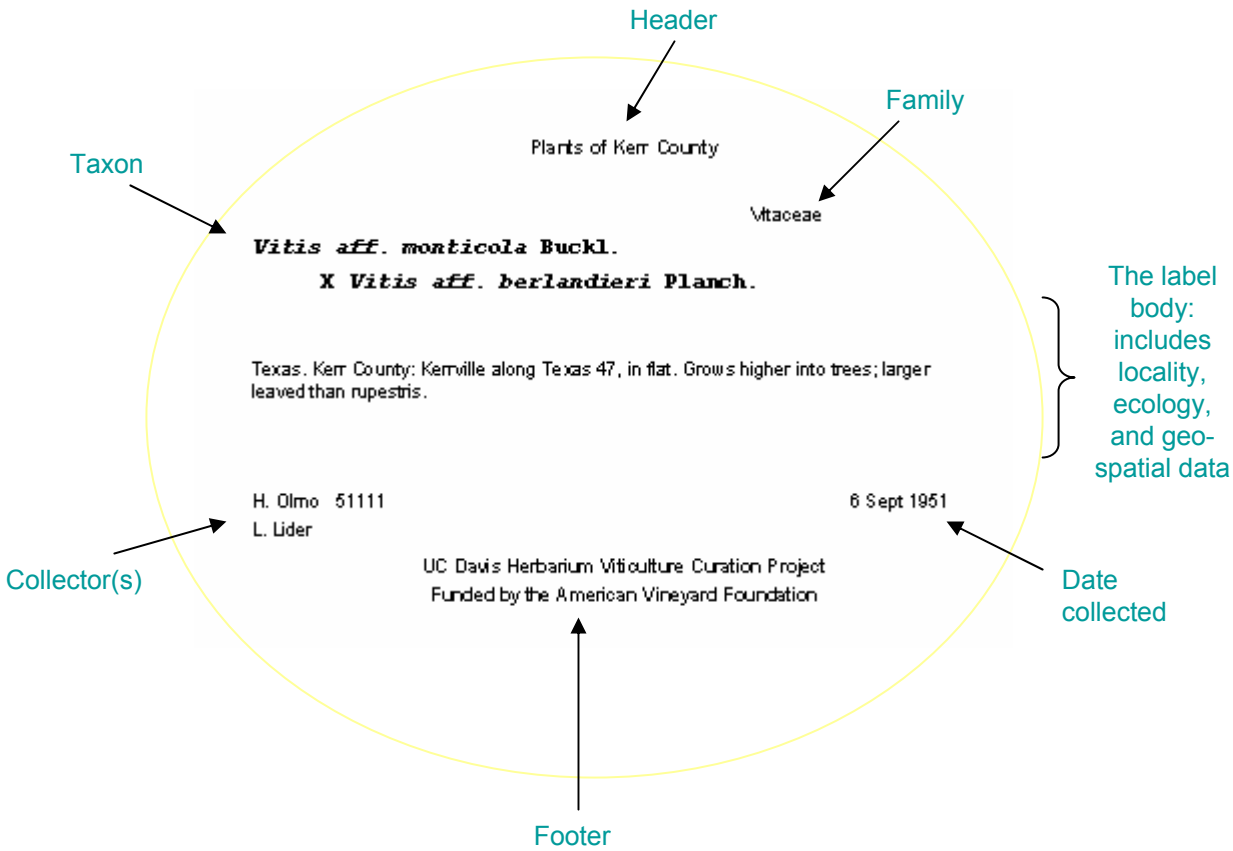
# Label print sample (hybrids)

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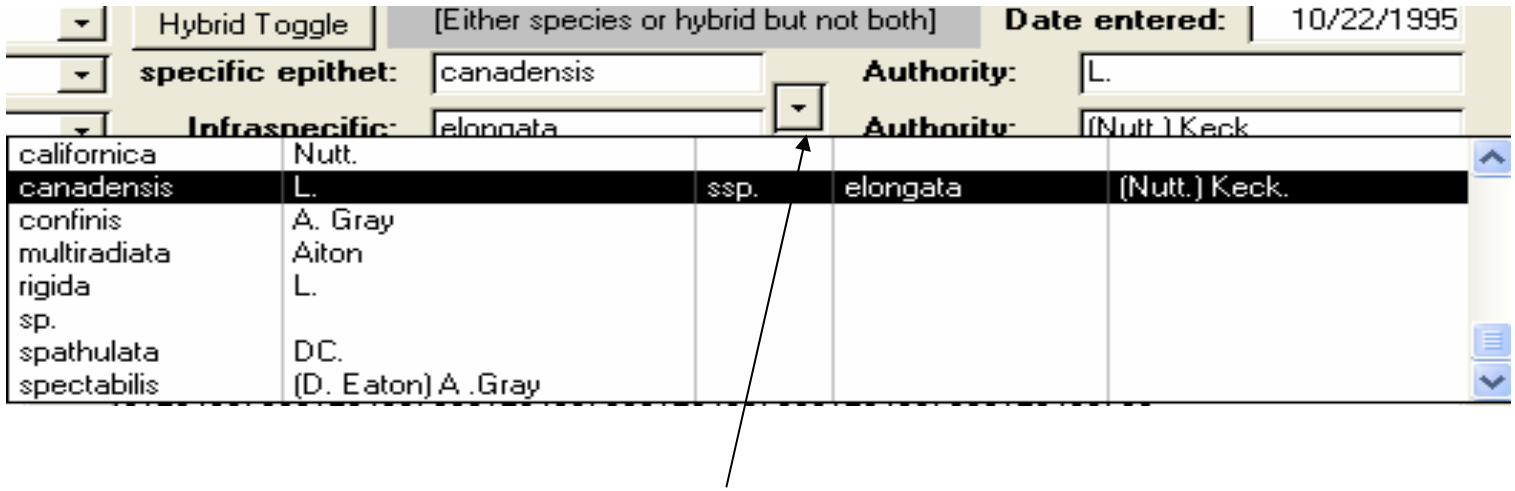
# Subspecific Taxonomic data entry




Click to drop down a list of current subspecific taxa to choose from. Once you have made a selection from the list, then the selected taxa (and authority) are placed within the appropriate text boxes in the label entry form

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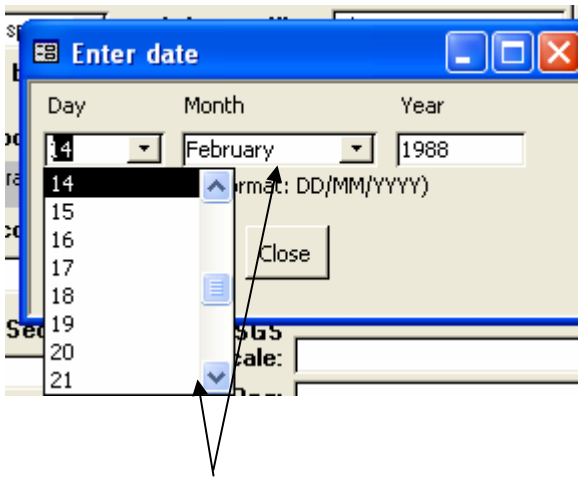
# Alternate data entry form for collection date




Drop down list allow selection of day and month.
Once you complete the date entry, the date is filled in on the label entry form.
This alternative date entry form allows for correct date entry.

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[The main label entry form allows free-text entry for the date,
e.g. Aug.-Sept. 1999]

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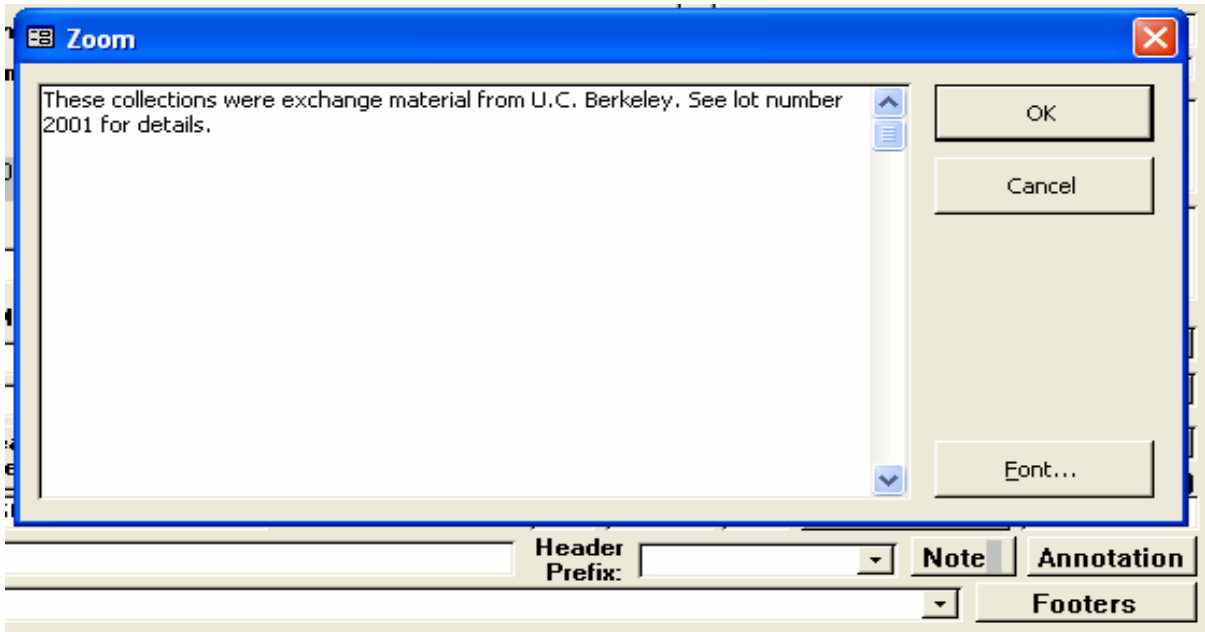
# Notes button




Click the "Notes" button to bring up data entry for any notes to be entered for this specimen/record.

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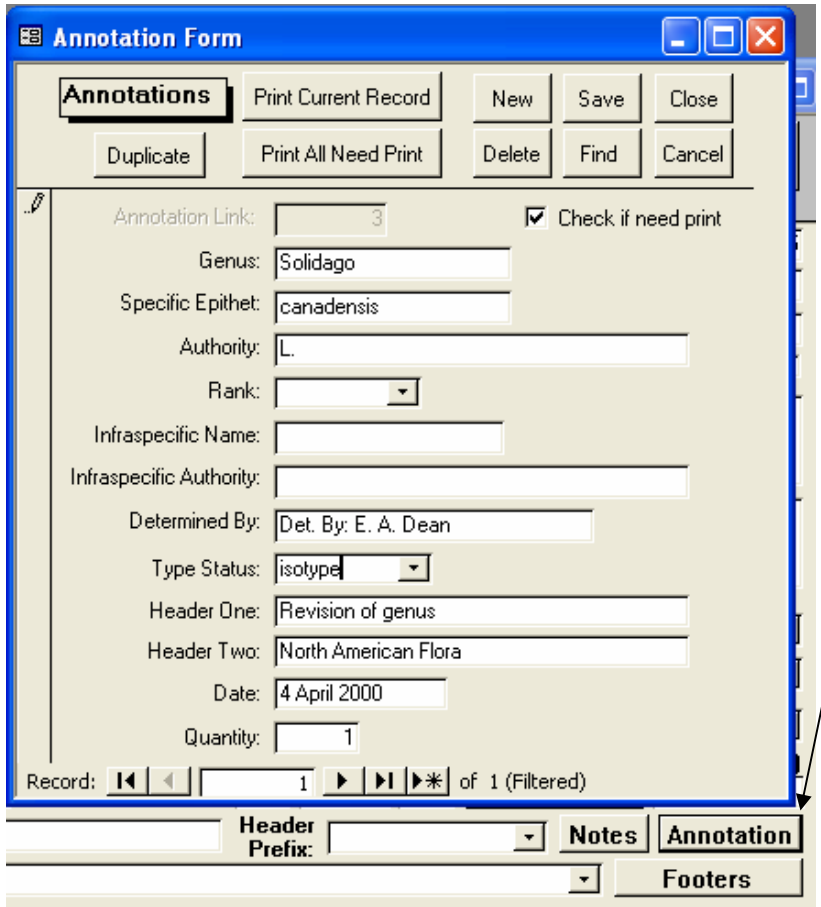
# Annotation Button




This “Annotation” button brings up all annotations to this specimen/label

[You can enter an infinite number of annotations for this record. The annotation sequences are normally determined by the date]

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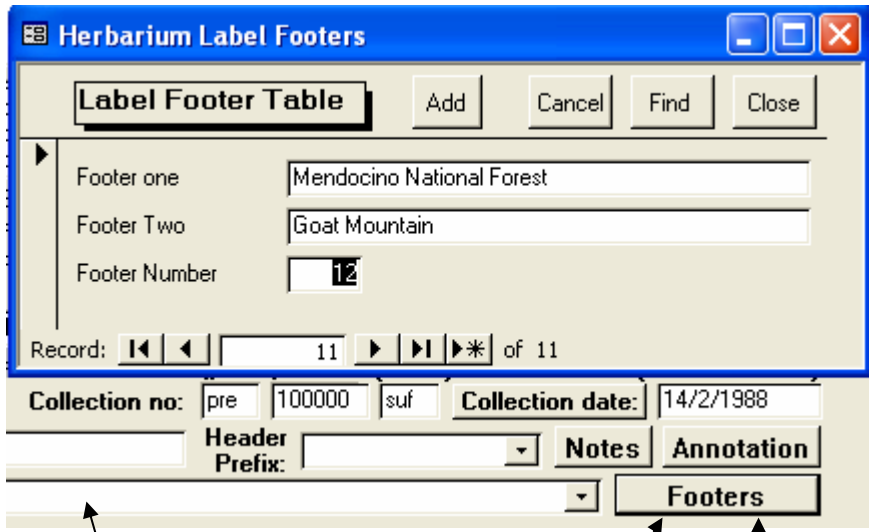
# Footer button




The "Footers" button dialog allows view, edit, or to add a new label footer

Use this footer list box to select label footer. To create a new footer, click the "Footers" button.

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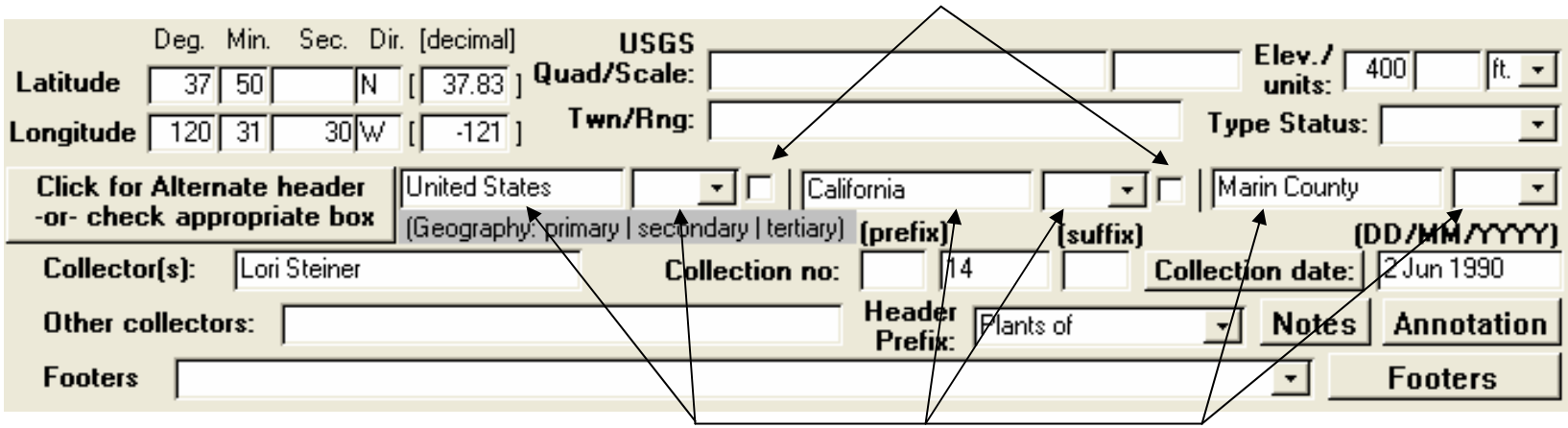
# Geography Label Entry

Check boxes: Toggled on (checked) indicates label header print sequence/order.
e.g. “Mexico”, the country, will print as the primary geographic header and “México”, the state, will print as the secondary header (as depicted here). If the check box to the right of “México”, the state, were checked then it will print as the primary geographic header and “Mcpo: Tejupilco” will print as the secondary header. See also “Alternative Headers”.




You can enter directly into the text boxes the geographic information. Or you can select from the 3 list boxes next to each of the 3 text boxes: From left to right, they are “Country”, “State/Province”, and “County”.
[In the database, these 3 geographic divisions are stored as “GeoPrimaryDivison”, GeoSecondaryDivision” and “GeoTertiaryDivision”]

***To add a new item to one of the 3 geographic divisions’ list boxes, simply type/enter in the new item into the list box (not the corresponding text box). After completing your entry, a dialog will prompt you to save your entry.***

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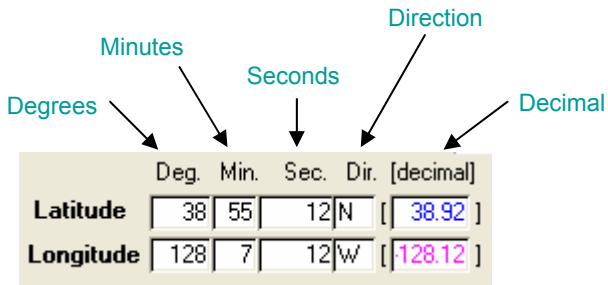
# Latitude and Longitude




Enter the degrees, minutes, seconds and direction of Latitude and Longitude.
(The decimal degrees is automatically recalculated with each change)

OR

Enter the decimal degrees of Latitude and Longitude (+/- entry to represent N/S or E/W).
(The degrees, minutes, seconds and direction is automatically recalculated with each change)

The values are automatically updated after each entry.

In the above example, the negative longitude (magenta color) decimal value represents West and the blue latitude value represents North.

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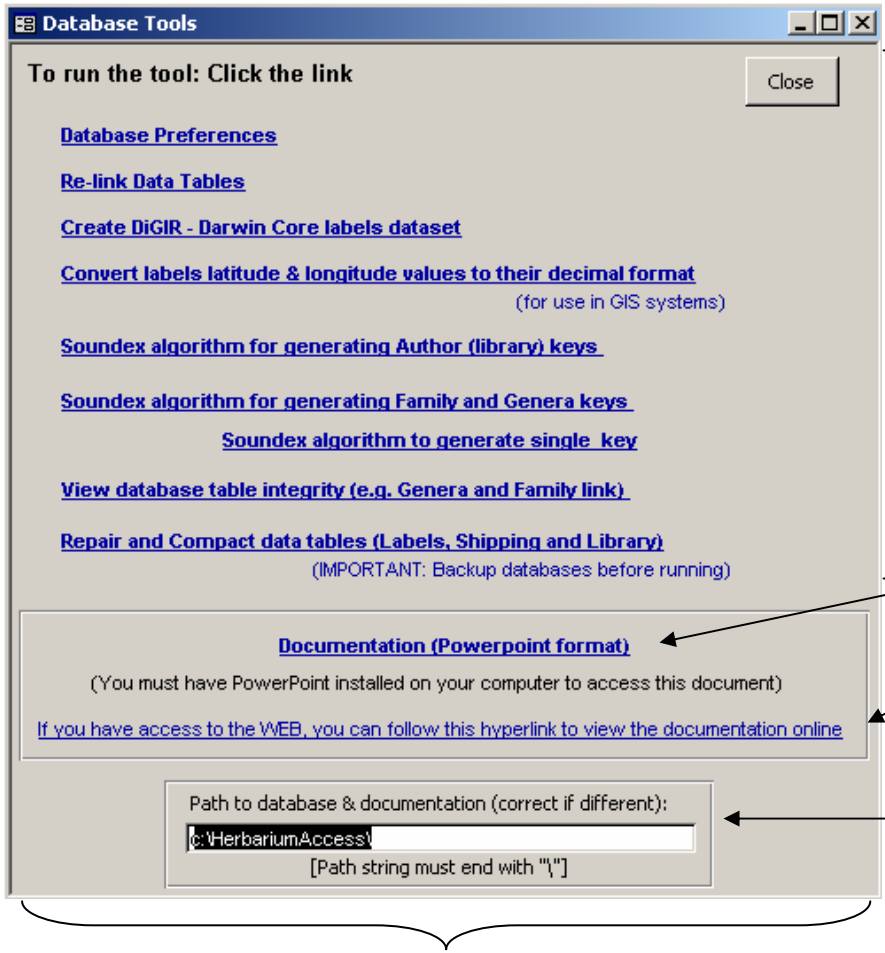
# Database Tools




Click on any of these links within the application to run the tool.

Click on any of these within this documentation to link to the tool documentation details about

Opens this documentation

Opens this documentation over the Web. You must have Internet/Web connectivity or this will produce an error.

Some of these tools require knowledge of the drive and directory where the databases reside. If differs from the default (C:\HerbariumAccess\) then provide the correct path.

Click any of these hyperlinks to run selected tool.

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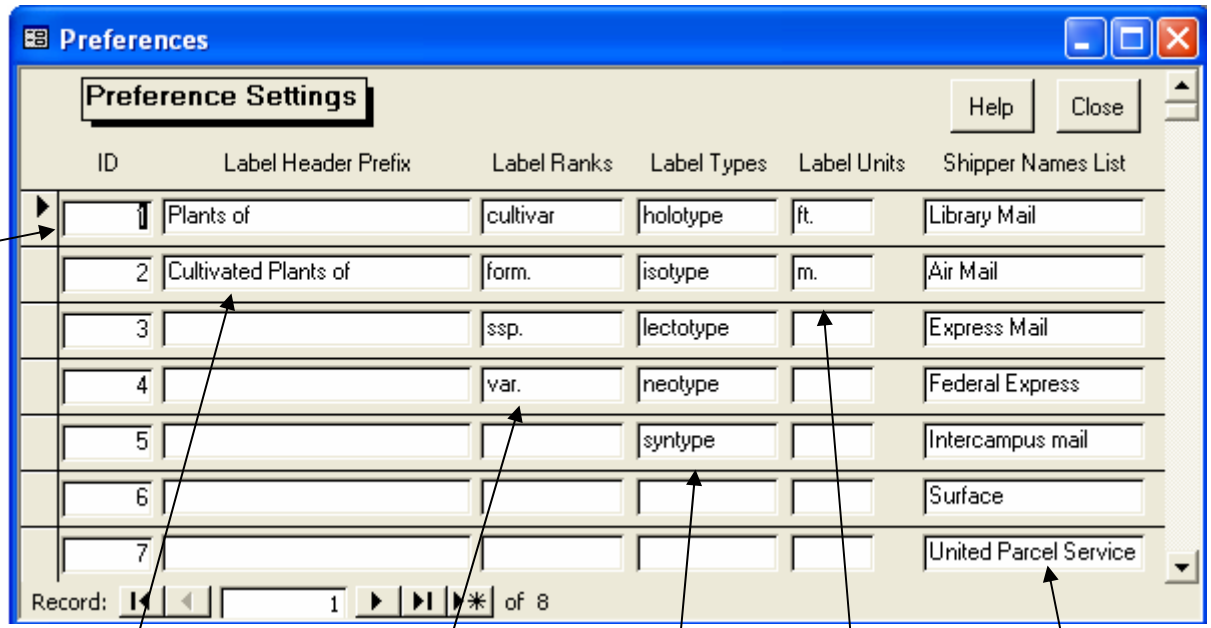
# Preference Settings

Entering new text in any of these columns adds to the selected pick lists for label data entry.




The ID is auto-generated as a unique row ID number

This column serves as the "Header Prefix" for the labels. It is the prefixed text to the label header. You can leave this blank and no prefix will be added to the label header.

This column serves as the pick list for subspecific ranks. Enter new ranks here to add to the pick list

This column serves as the pick list for the "Type" status of the specimen.

This column serves as the pick list for the elevation units.

This column serves as the pick list for shipping data information.

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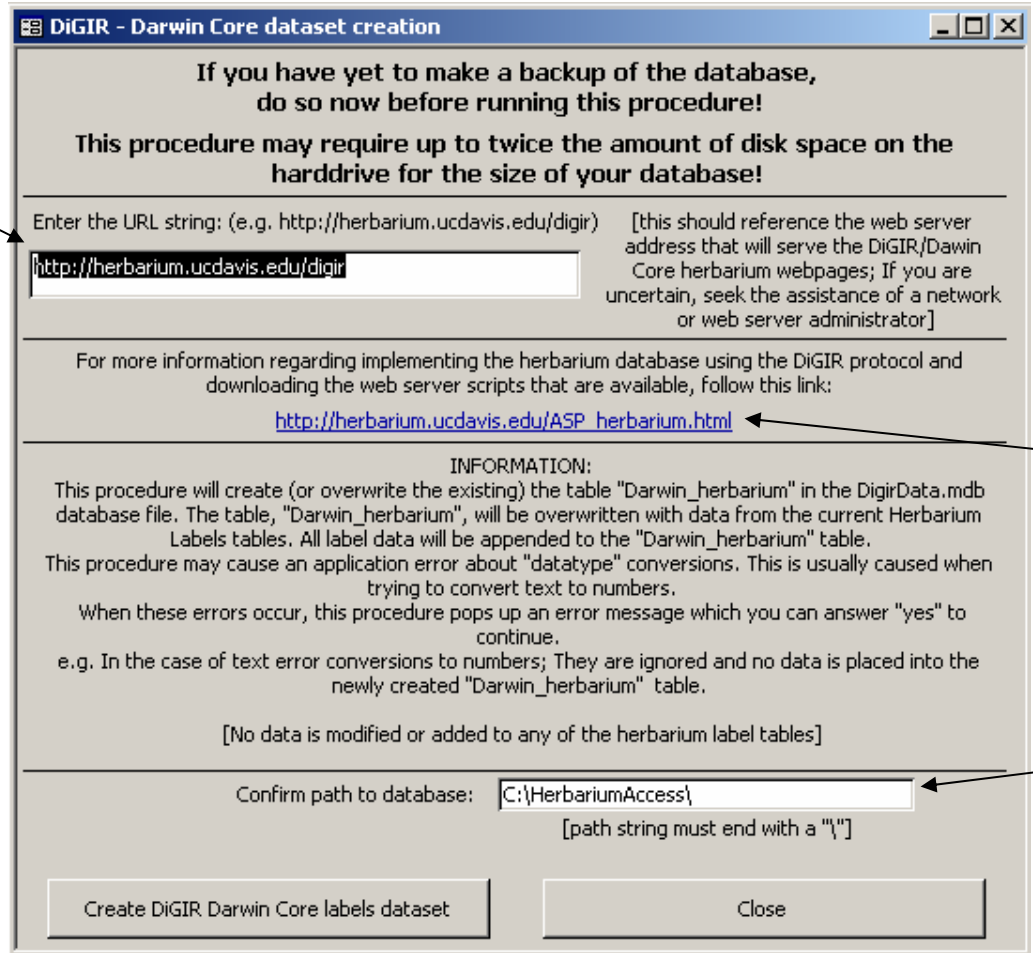
# Create the Darwin Core Table

Provide a fully qualified Uniform Resource locator. This gets appended to the table and provides a dynamic link to data




URL for further details

Confirm or provide changed path string

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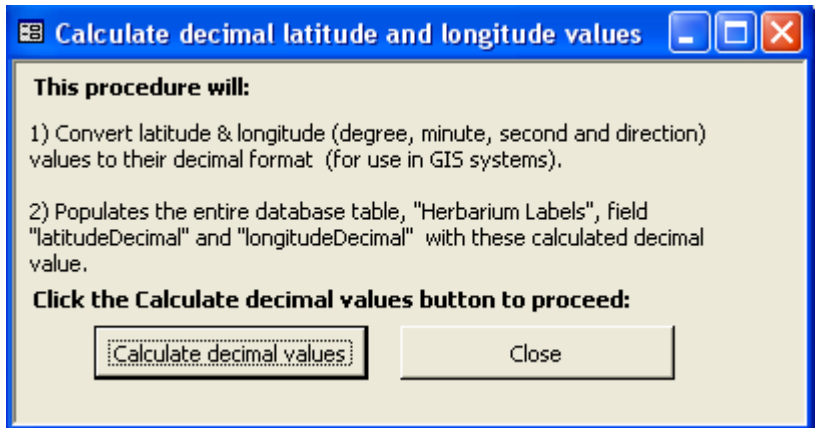
# Calculate Latitude and longitude decimal values




Click the “Calculate decimal values” to run the procedure to iterate through all label data records and re-calculate all decimal values based on data entry into the corresponding degrees, minutes, seconds, and direction values.

Note: These decimal values do not print as part of the Herbarium label. Usually run this procedure, if need, before exporting to a GIS system or before exporting using the Darwin Core/DiGIR option.

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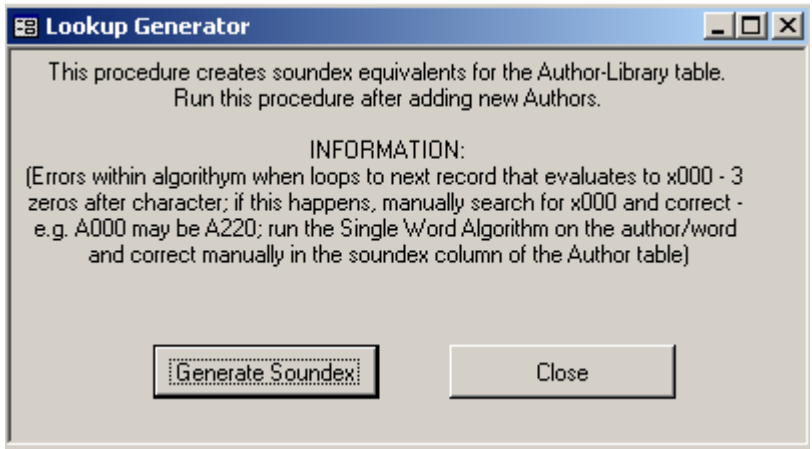
# Author-Library Soundex




The Author data within the library table can be copied into a separate Authors table. This procedure then can be applied to the Authors table to create soundex keys which are available for use in the Library search options.

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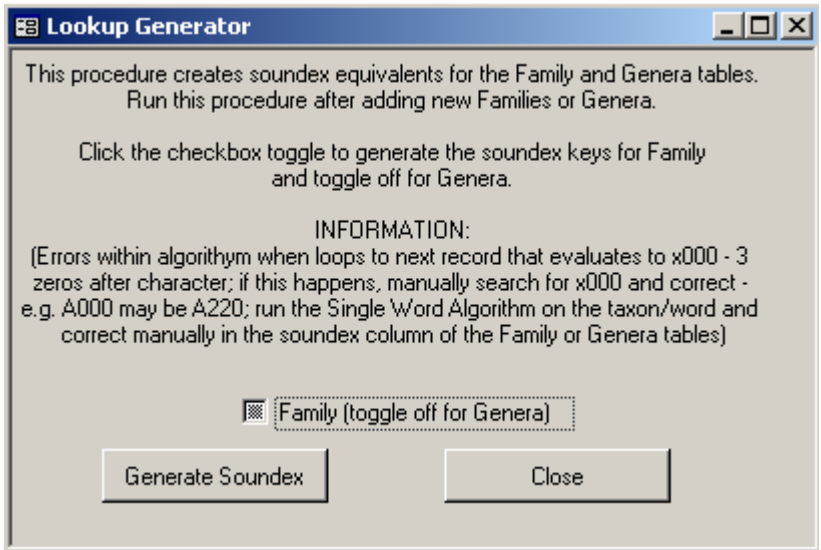
# Family and Genera Soundex




A soundex key field exist within the Genera and Family tables. This procedure will generate these keys.

Toggle on the check box to run the procedure to generate the Genera keys.
Toggle off the check box to run the procedure to generate the Family keys.

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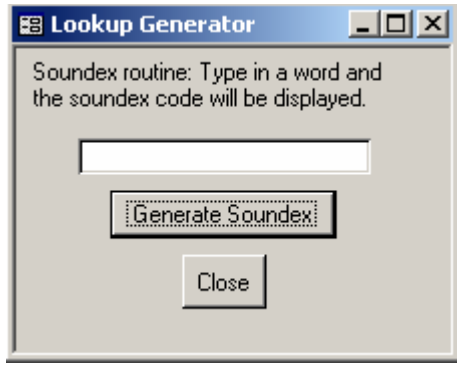
# Word Soundex




This option will allow generating the soundex key for the text entered into the text box. It is used to manually create the soundex key for a taxon name that can be manually added to the Family or Genera tables.

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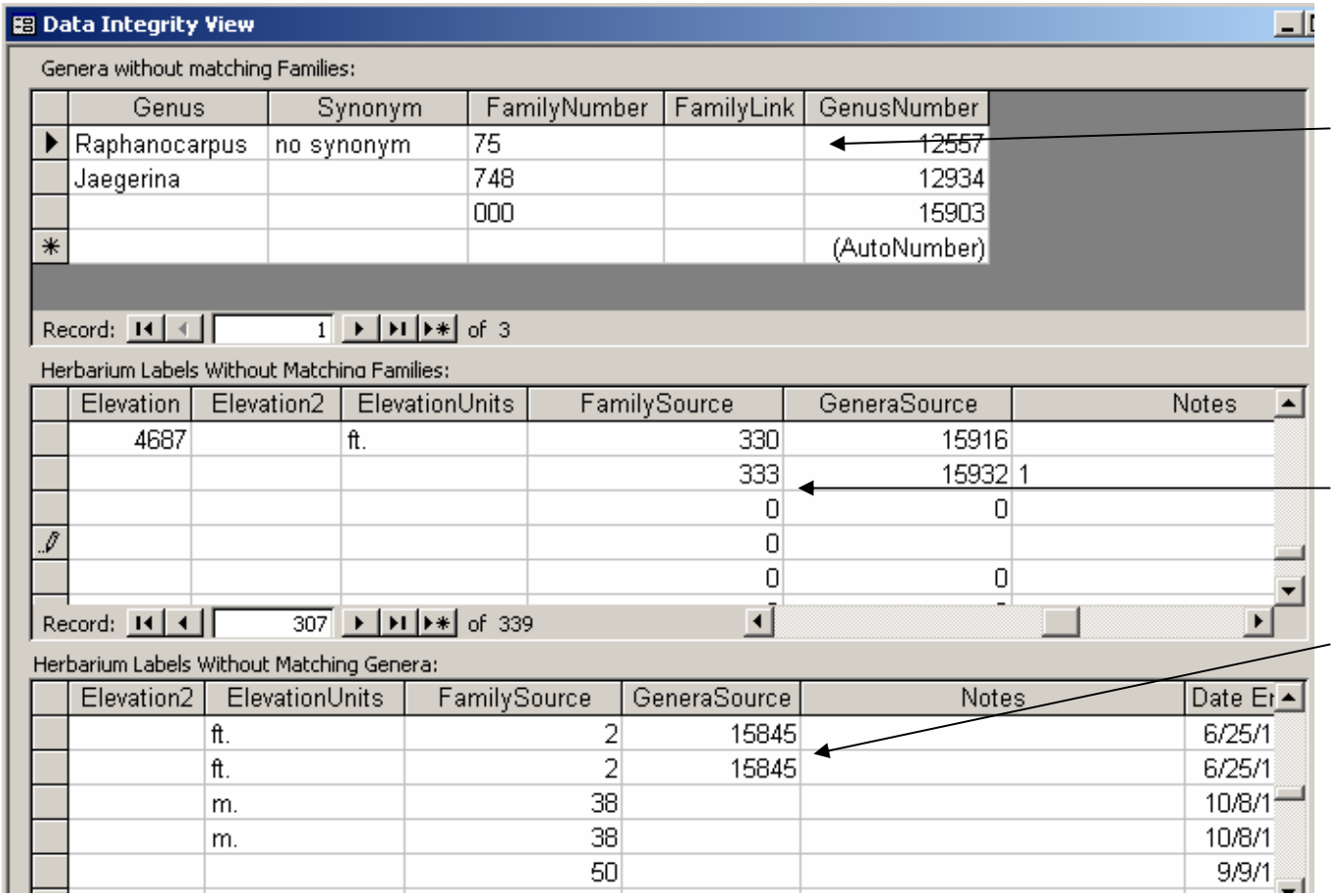
# Data Integrity View




Here we see there are no values for "FamilyLink", indicating these 2 genera are not associated with any Family

Here we see that either zero or no values occur within the "FamilySource" and/or "GeneraSource" columns, indicating that these Labels have yet to have any entry for Family and/or Genus; Another possibility is if a Family or Genera does not exist in the linked Family or Genera Tables, yet has an a non-existent assignment/number in the column.

Use this query view to peruse table relationships as depicted in the 3 above queries
(No rows/records shown would represent no integrity problems or empty values)

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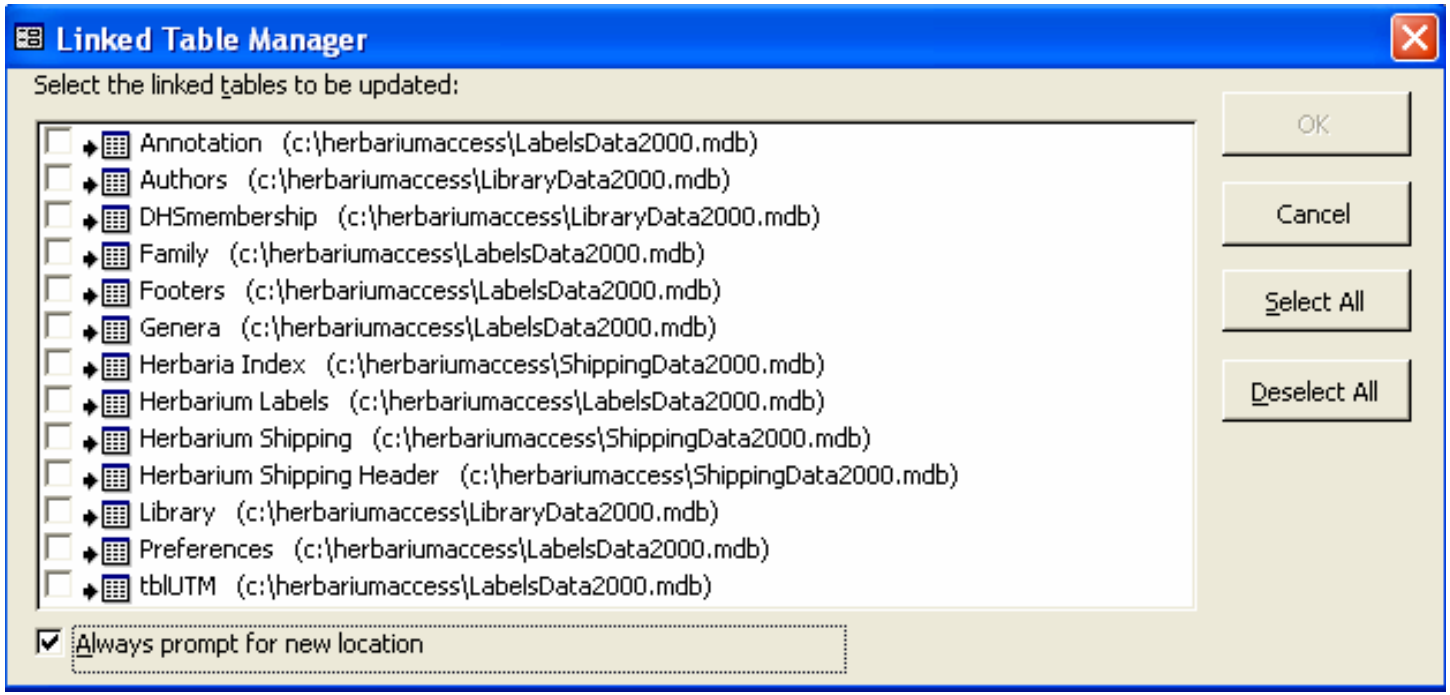
# Link Table Manager




This dialog shows the linked tables. After installation, all referenced linked tables point to “C:\HerbariumAccess” drive and folder. You can re-link the tables using this dialog or Click here to learn how to refresh these links

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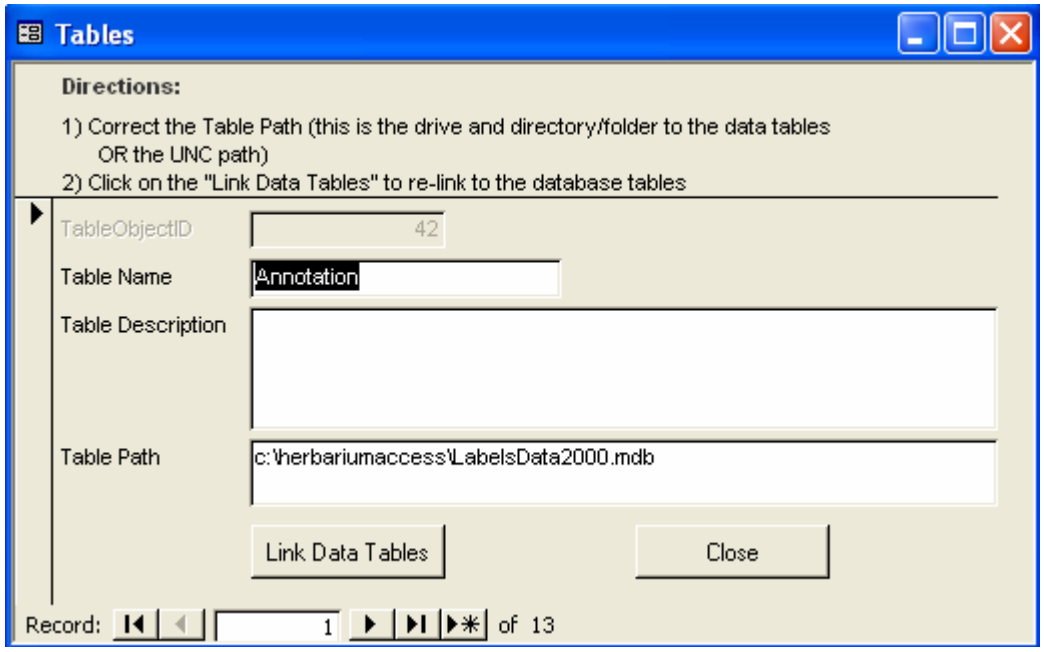
# Re - Link Database Tables




The 13 linked tables are already entered into this form dialog. You can change the “Table Path” to another drive and/or folder; e.g. “D:\Data\LabelsData2000.mdb”

After editing the “Table Path”, clicking on the “Link Data Tables” button will run the scripts to re-link the tables.

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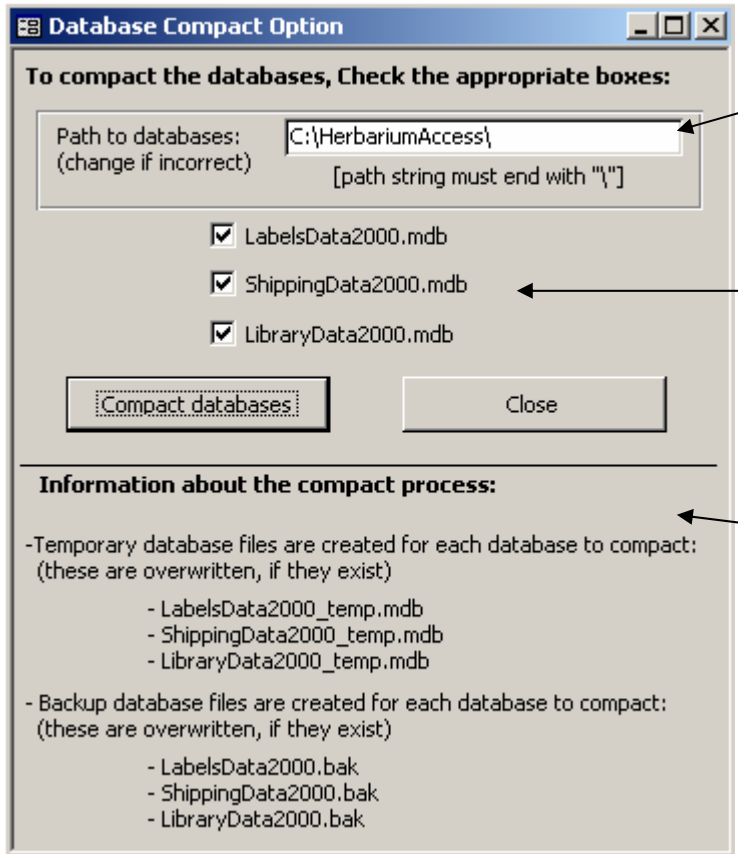
# Database Compact Option




Confirm or provide the correct path to the databases

Check the box next to the databases to compact. All are checked by default

Read details about the compact process!

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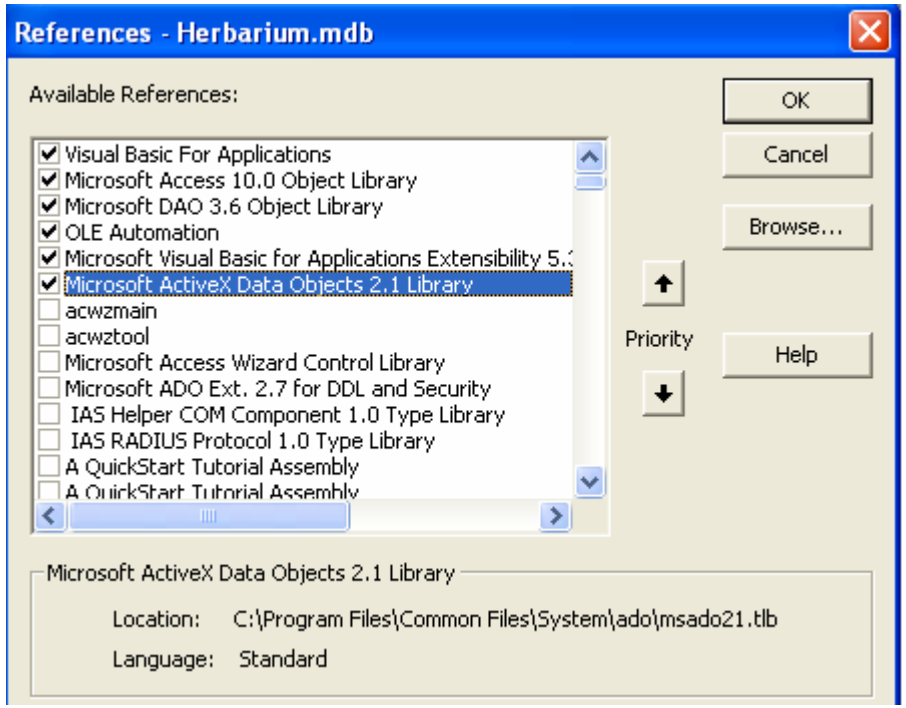
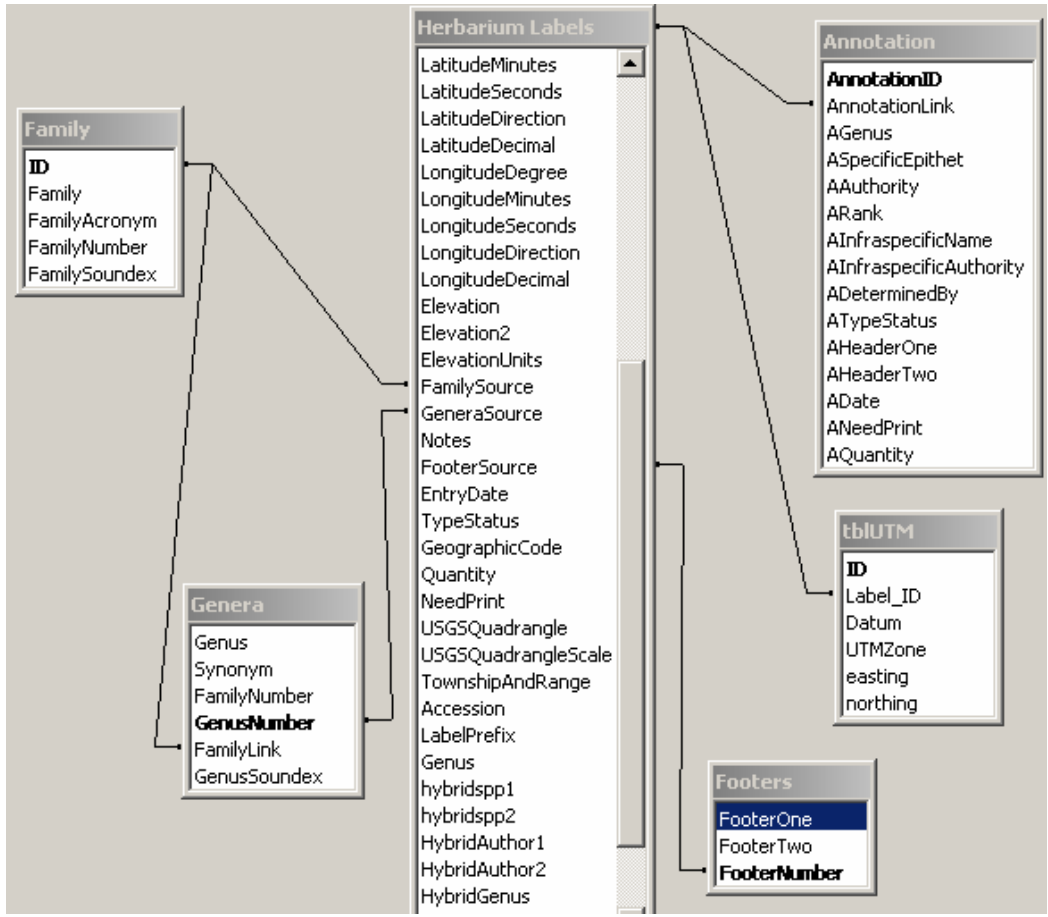
# Trouble Shooting, When Application Errors Occur




The majority of problems that arise after copying the program to your computer are usually a result of one of the above reference library links are missing. If one of the reference library links are broken, a “Missing…” message will appear in the place of the library reference name. If this happens then you will need to do one or two options to correct the problem.

1) Usually you will be able to scroll through the list to select the missing reference library link, which may be located elsewhere then where the application was initially established a link.
2) You may have to re-load Microsoft Access or Microsoft Office suite and select to install the missing library reference file.

# Labels Database (LabelsData2000.mdb)
# Table Structure and Relationships




Click: Next for details

# Base Table General Information

The preceding slide shows the base tables within the database, LabelsData2000.mdb (Click here for details on additional tables) and their relationships. The below table briefly outlines the table names and their relationships to each other.

| Parent Table name (database name) | Linked Child Table name | Defined link (Parent to Child relationship) |
|---|---|---|
| Herbarium Labels | Annotation | One to Many |
| Herbarium Labels | tblUTM (UTM table) | One to Many |
| Herbarium Labels | Family | One to Many (although each row/record in the Herbarium Labels table stores only a single family) |
| Family | Genera | One to Many |

* The table structures and referential links between the tables have undergone a few changes since the original version of 1995. We have chosen to maintain backward compatibility rather then re-define the table structures into a more “true” referential database structure. Our future goal is to port the database to a Microsoft SQL enterprise database at which time the database will undergo a re-developed as a “true” relational database. Thus, with this database structure, you can produce “orphans”.

# UC Davis Herbarium Management Program Documentation

***…Work in progress.***

***The following slides document how to enter Label data (including the updated additions to the version 4 release).***

***We are working on completing the documentation for the Shipping, Library, and Society Membership part of the application***

***To view the Labels documentation, Proceed to the next slide…***

***…The UC Davis herbarium also maintains a separate "Type" specimen database. This database holds additional information regarding these special collections:***

- ***Original Determination***
- ***Annotations***
- ***Publications***

***The "Type" specimen database is being revised and will be incorporated into the "Main" specimen database.***

End of documentation

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