

# Importing Accession Data

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## Revision Date

October 18, 2011

## Importing Accession Records into GRIN-Global using the Curator Tool

In this step-by-step exercise, you will learn how to copy genebank data originally stored in a spreadsheet into the GRIN-Global Curator Tool. The premise being used here is that a genebank has been maintaining data in spreadsheets, and now intends to use GRIN-Global to manage their data. We are using sample “Vicuna Beans” data, but the same steps followed here can be used for any plant genetic resource data.

This exercise illustrates how to import genebank data by matching your spreadsheet’s column headings with the column names used in the Curator Tool.

Note that your organization’s GRIN-Global administrator establishes the Curator Tool column names, based on the organization’s procedures. In some cases, you may be the administrator as well as the user of the Curator Tool.



There are several methods for getting existing accession records into GRIN-Global. This exercise illustrates just one of the methods. Here, you will prepare a spreadsheet with data and then copy (drag) the data into the Curator Tool. A second method uses the Admin Tool’s Import Wizard to load data from a spreadsheet (actually a [.csv file](#)) into GRIN-Global. In this second method, the Curator Tool is not involved. Both of these methods are effective for bringing many records into GRIN-Global simultaneously. The third method involves using the Curator Tool’s Accession wizard to walk through inputting *one* accession record at a time; in this lesson we will not be looking at that method either.

### Prerequisites:

In addition to this document, you will also need:

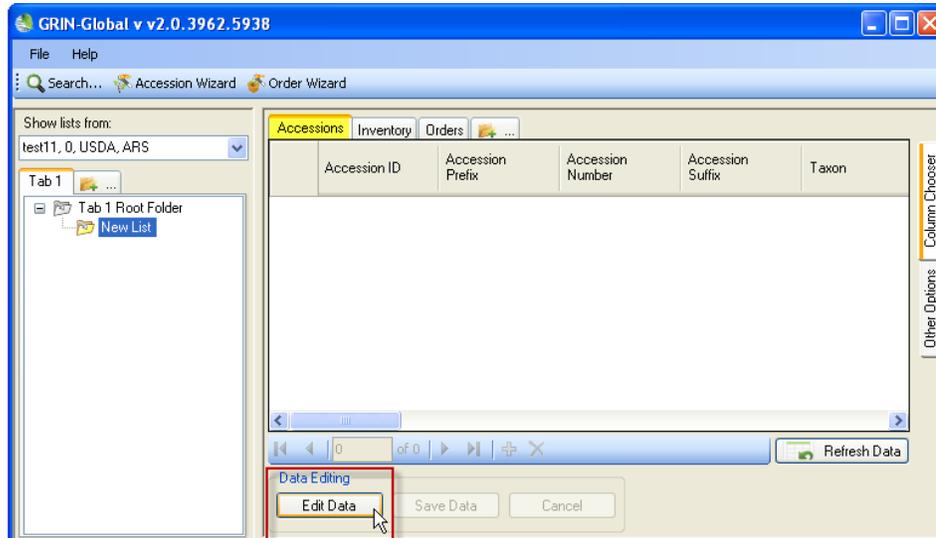
- a spreadsheet with the sample Vicuna Beans data. This can be downloaded from the wiki Training page: <http://www.ars-grin.gov/npgs/gringlobal/lessons/vicuna.xls>
- spreadsheet software, such as Microsoft’s Excel, [google docs](#), [OpenOffice.org](#), etc.
- the [Curator Tool User Guide](#) (for reference, if desired)

## Directions:

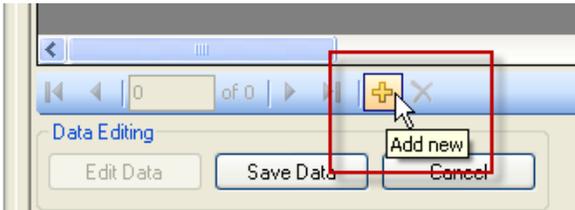
Step1: Open the GRIN-Global Curator Tool

Step 2: Use Excel or any compatible spreadsheet. Start a new, blank spreadsheet. (You can have other spreadsheets open.)

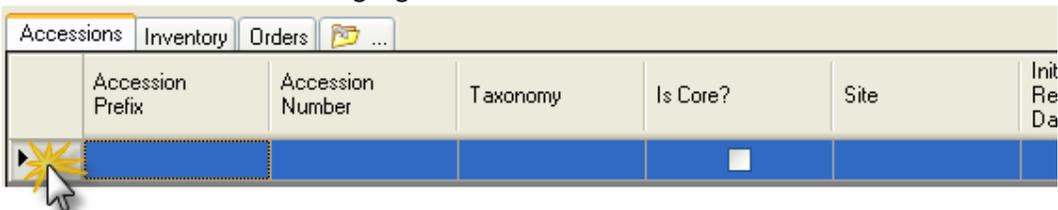
Step 3: In the Curator Tool, ensure that the **Accessions** tab is the active tab. Click the **Edit Data** button to initiate "Edit" mode.



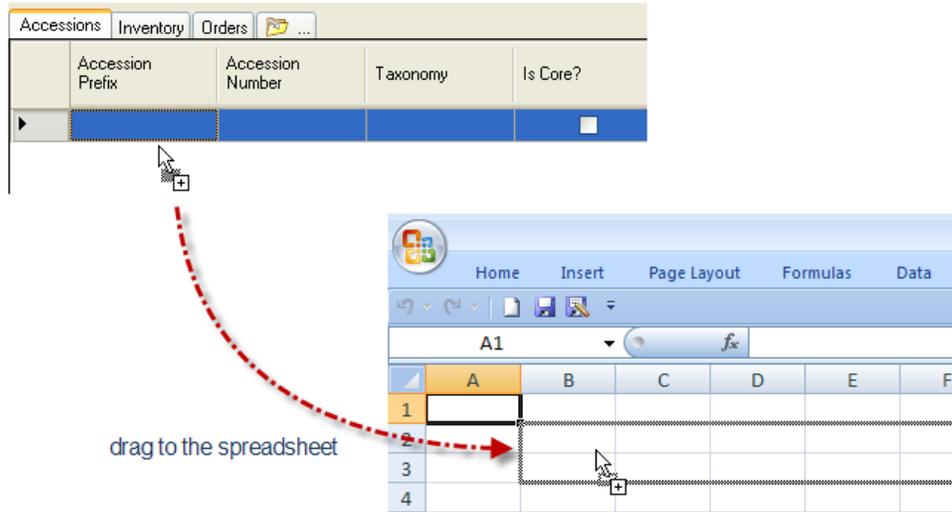
Step 4: Click the **Add new** button.



Step 5: Click the row header cell to highlight all of the row's cells.

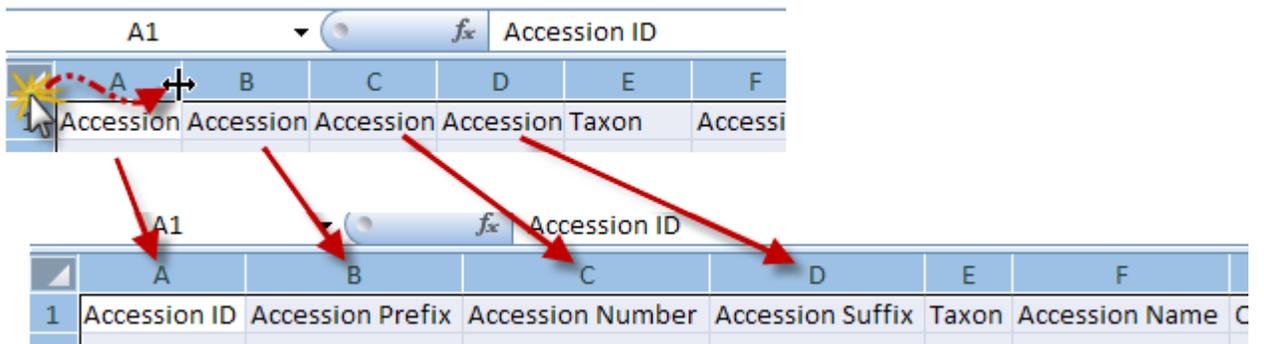


Step 6: Drag the highlighted (usually blue) block into your blank spreadsheet. (Click in the blue highlighted area.) Be patient – sometimes there is a slight delay before the spreadsheet accepts the data. (A [video](#) on the GRIN-Global training page illustrates how to drag and drop. )



Step 7: Let’s refer to this new spreadsheet as your “transfer spreadsheet” to differentiate it from the original spreadsheet containing your source data. Save the sheet; name it “**transfer.**”

Step 8: Widen the columns in the **transfer** spreadsheet: click the top, left header cell; then double-click on the vertical column separator between the A and B column headings.



Step 9: In this next step, in actuality a series of steps, you will copy data from the original source spreadsheet (**vicuna**) to the appropriate headings in the new spreadsheet (**transfer**). To simplify the exercise, you will just copy the first 12 records from the original source data.

Note: In order to upload Accession data into the Curator Tool, several fields are required:

- **Accession Prefix**
- **Taxon**
- **Initial Received Date**

Although **Accession Number** and **Accession Suffix** are optional, they are frequently used by organizations. As you create accession records, the combination of the Prefix, Number, and Suffix fields must be unique to each record.

Your new **transfer** spreadsheet currently should look similar to the following:

	A	B	C	D	E	F	G	H	I	J
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Accession Name	Origin	Maintenance Site	Is Core?	Is Backer
2	-1								N	N
3										
4										

Since you will not be using all of these columns, at this point, this would be a good time to remove the unnecessary columns and rearrange the **transfer** sheet's columns. You will need a transfer sheet with at least the following columns:

	A	B	C	D	E	F	G
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Accession Name
2	-1						
3							
4							
5							
6							

The **Initial Received Date** was in column R. To create the illustration above, a blank column was inserted after column E, and then the **Initial Received Date** heading was dragged from column S. (Alternatively, you can simply type the heading, but be careful about spelling "Initial Received Date" correctly.)

Also, create two new headings in columns G and H (Genus and Species). Your **transfer** spreadsheet should be the same as the following:

	A	B	C	D	E	F	G	H	I
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Genus	Species	Accession Name
2	-1								

Delete the "-1" entry in cell A2. (Note: In the Curator Tool, the **Accession ID** is generated by GRIN-Global – you do not supply that data. (However, in a later step you will see that the empty **Accession ID** column will need to be copied.)

Note that the combined fields **Accession Prefix**, **Number**, and **Suffix** comprise each record's key; the combination must be unique for each record. If your organization does not use the **Suffix** field, then the combination of the **Prefix** and **Number** fields must be unique. Similarly, if only the **Prefix** is used, then each Prefix must be unique.

For this next step, copy from the **vicuna** spreadsheet’s cell F3, the text **VICUÑA\_ID** as the **Accession Prefix**. Since **VICUÑA\_ID** will be the Accession Prefix for all of the accessions, copy it into **transfer**’s cells B2 – B13. Note that in the illustration below, column B’s cells’ borders, the underlining, were removed. You do not need to do this, but it was done here to provide a clearer image. When the data is copied into the Curator Tool, any cell borders are ignored.

So that multiple students can complete this same exercise on the same server, include your initials or some other unique identifier as part of the **Accession Prefix**. For instance, you could use **VICUÑA\_ID\_mar**, where “mar” are your initials. If you are working on a standalone PC, your initials are not necessary.

	A	B	C	D	E	F	G	H
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Genus	Species
2		VICUÑA_ID mar						
3		VICUÑA_ID mar						
4		VICUÑA_ID mar						
5		VICUÑA_ID mar						
6		VICUÑA_ID mar						
7		VICUÑA_ID mar						
8		VICUÑA_ID mar						
9		VICUÑA_ID mar						
10		VICUÑA_ID mar						
11		VICUÑA_ID mar						
12		VICUÑA_ID mar						
13		VICUÑA_ID mar						

Copy the **Accession Number** for the first twelve records from **vicuna** (cells F4 – F15) into **transfer** (cells C2 – C13).

	A	B	C	D	E
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Ta:
2		VICUÑA_ID mar	95001		
3		VICUÑA_ID mar	95005		
4		VICUÑA_ID mar	95006		
5		VICUÑA_ID mar	95008		
6		VICUÑA_ID mar	95009		
7		VICUÑA_ID mar	95010		
8		VICUÑA_ID mar	95011		
9		VICUÑA_ID mar	95012		
10		VICUÑA_ID mar	95017		
11		VICUÑA_ID mar	95020		
12		VICUÑA_ID mar	95021		
13		VICUÑA_ID mar	95023		

(Since the source data does not have a field equivalent to suffix, we’ll leave column D temporarily empty.)

Taxonomy (“Taxon”) is the next column to process. Review the original **vicuna** spreadsheet – notice that genus is in one column and species data is in another. However, in the GRIN-Global Curator Tool, the taxonomic name occupies just one field, so the source data must be concatenated before importing to the Curator Tool.

In the original **vicuna** spreadsheet, genus and species data are in columns **K** and **L**.

J	K	L	M
	Scientific name		Botanical vari
SOC_NUM6	GENUS	SPECIES	BOT_VAI
	Phaseolus	vulgaris	

In this scenario, since all of the accessions have the same taxon (genus + species in this case), you could simply enter *Phaseolus vulgaris* into columns **E2:E13** of the **transfer** spreadsheet. However, the following directions will show you how you can use a spreadsheet’s handy concatenation capability when you will be copying many rows and the genus and species data differ.

Copy the **vicuna** *genus* data into **transfer** cells G4:G13; copy the **vicuna** *species* data into **transfer** cells H2:H13.

Use the spreadsheet’s **=CONCATENATE** function to join the genus and species cells:

E2		=CONCATENATE(G2," ",H2)						
A	B	C	D	E	F	G	H	
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Genus	Species
2		VICUÑA_ID mar	95001		Phaseolus vulgaris		Phaseolus	vulgaris
3		VICUÑA_ID mar	95005				Phaseolus	vulgaris
4		VICUÑA_ID mar	95006				Phaseolus	vulgaris
5		VICUÑA_ID mar	95008				Phaseolus	vulgaris
6		VICUÑA_ID mar	95009				Phaseolus	vulgaris

The function in cell E2 can then be copied down for the remaining 11 records. Copy cell E2, but use the **Paste Special | Value** command (or **Paste Values** command in Excel 2007) to copy the taxon data as text. (**Copy** cell E2; **Paste Special | Value cells** E2:E13). The data in Column E should be text and look similar to the following:

E2		Phaseolus vulgaris						
A	B	C	D	E	F	G	H	
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Genus	Species
2		VICUÑA_ID mar	95001		Phaseolus vulgaris		Phaseolus	vulgaris
3		VICUÑA_ID mar	95005		Phaseolus vulgaris		Phaseolus	vulgaris
4		VICUÑA_ID mar	95006		Phaseolus vulgaris		Phaseolus	vulgaris
5		VICUÑA_ID mar	95008		Phaseolus vulgaris		Phaseolus	vulgaris
6		VICUÑA_ID mar	95009		Phaseolus vulgaris		Phaseolus	vulgaris
7		VICUÑA_ID mar	95010		Phaseolus vulgaris		Phaseolus	vulgaris
8		VICUÑA_ID mar	95011		Phaseolus vulgaris		Phaseolus	vulgaris
9		VICUÑA_ID mar	95012		Phaseolus vulgaris		Phaseolus	vulgaris
10		VICUÑA_ID mar	95017		Phaseolus vulgaris		Phaseolus	vulgaris
11		VICUÑA_ID mar	95020		Phaseolus vulgaris		Phaseolus	vulgaris
12		VICUÑA_ID mar	95021		Phaseolus vulgaris		Phaseolus	vulgaris
13		VICUÑA_ID mar	95023		Phaseolus vulgaris		Phaseolus	vulgaris

Complete two other columns:

- for the **Accession Suffix**, use your initials for all records (unless you already added them to the **Prefix**, as suggested earlier). In the example below, both the Prefix and Suffix were altered. (By having a unique prefix or suffix, you will be ensuring that unique Accessions are added. This is important if multiple people attempt to do this exercise on the same database.)
- use today's date for the **"Initial Received Date"**

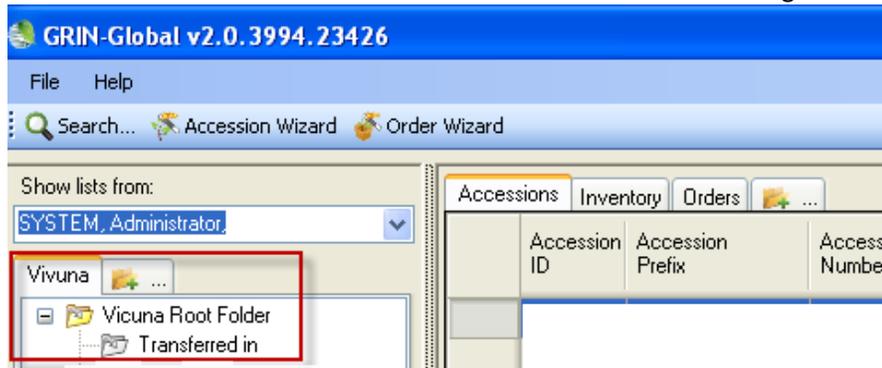
	A	B	C	D	E	F	G	H
1	Accession ID	Accession Prefix	Accession Number	Accession Suffix	Taxon	Initial Received Date	Genus	Species
2		VICUÑA_ID mar	95001	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
3		VICUÑA_ID mar	95005	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
4		VICUÑA_ID mar	95006	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
5		VICUÑA_ID mar	95008	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
6		VICUÑA_ID mar	95009	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
7		VICUÑA_ID mar	95010	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
8		VICUÑA_ID mar	95011	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
9		VICUÑA_ID mar	95012	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
10		VICUÑA_ID mar	95017	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
11		VICUÑA_ID mar	95020	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
12		VICUÑA_ID mar	95021	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris
13		VICUÑA_ID mar	95023	mar	Phaseolus vulgaris	1/7/2011	Phaseolus	vulgaris

The data in the **transfer** spreadsheet is ready to be copied or dragged into the Curator Tool. However, before doing so, in step 10, you will return to the Curator Tool and create a **Tab** and **List**. In the List Panel, you can establish tabs and lists with meaningful names which will assist you in organizing your data.

Step 10: In this step, using the Curator Tool, you will set up a tab and a list which will ultimately point to the records. (In step 11 you will drag the records into the Curator Tool.)

(Earlier, in step 3, you were in Edit mode. If you are still in Edit mode, temporarily exit from Edit mode: click the **Cancel** button under the Data Grid.)

In the List Panel, create your Tab and List names as desired. To rename a Tab, right-click on the tab name and select **Properties**, then rename; to rename the **NewList**, right-click on **NewList** and select **Rename**. Create names similar to the following:



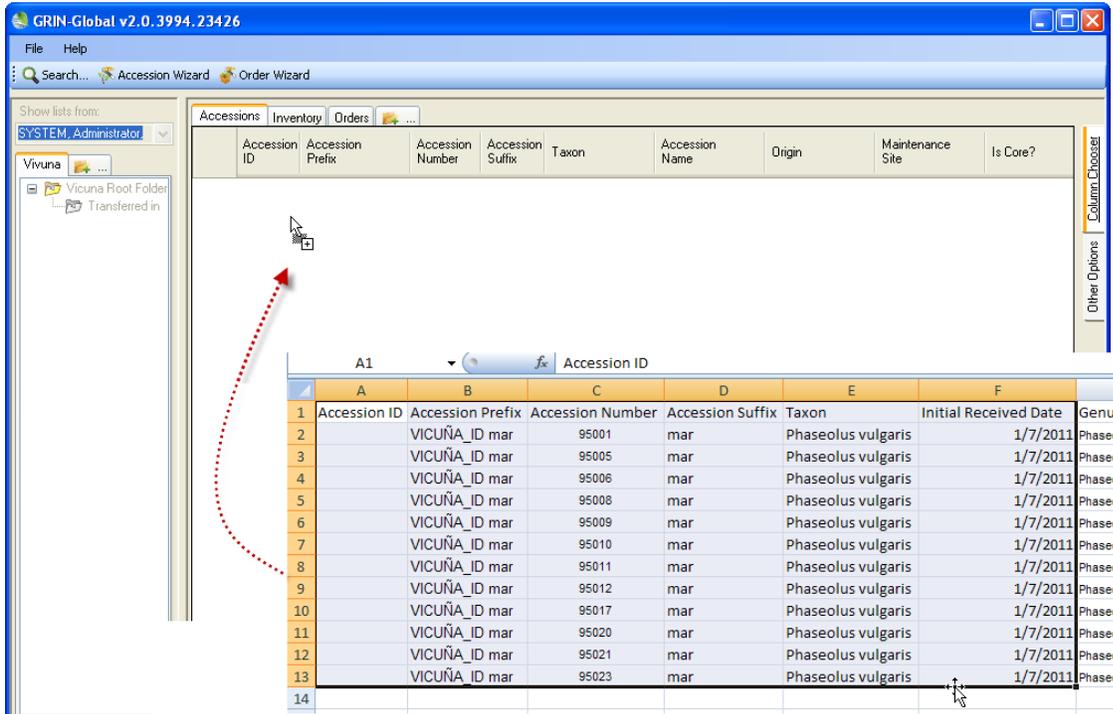
### Step 11:

Copy data from the transfer sheet to the Curator Tool.

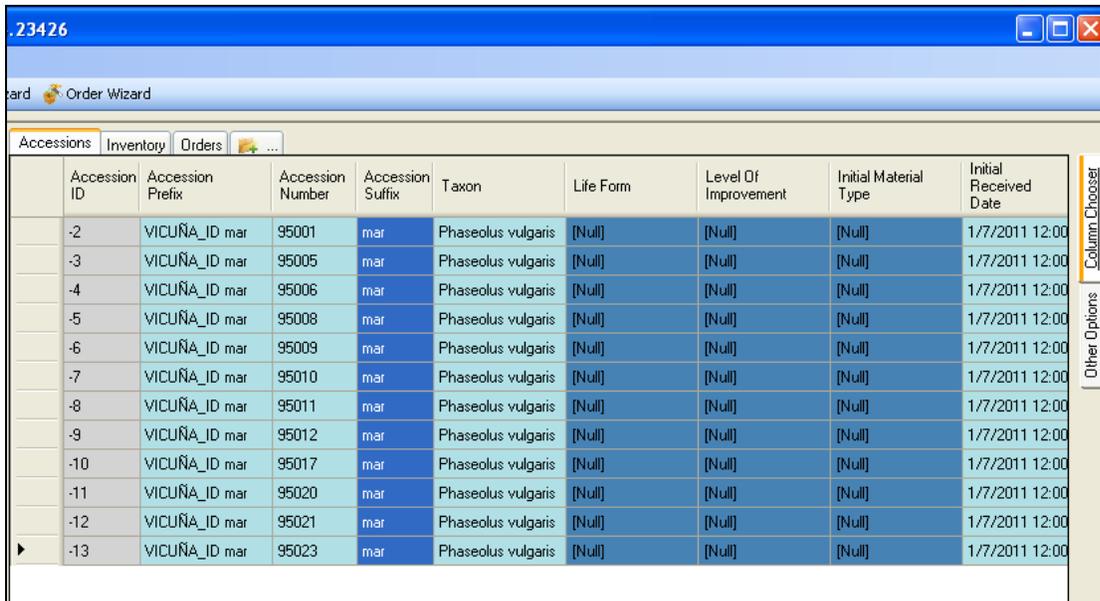
Drag and drop or copy the block of data from the spreadsheet into the Curator Tool Data Grid.

Two things to remember:

- the Data Grid must be in Edit mode (click the **Edit** button if necessary)
- include the empty Accession ID column



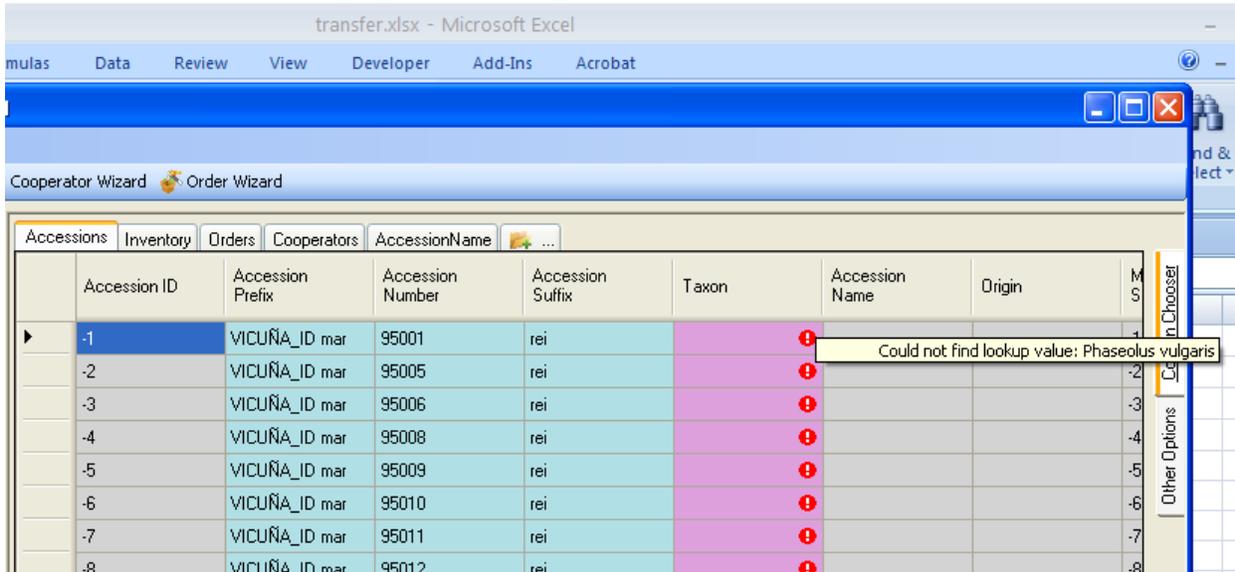
The Curator Tool should look similar to the following window:



Notice that GRIN-Global temporarily assigned Accession IDs to the new records. The minus (-) signs indicate that the IDs are temporary; when the data is saved, permanent IDs are assigned.

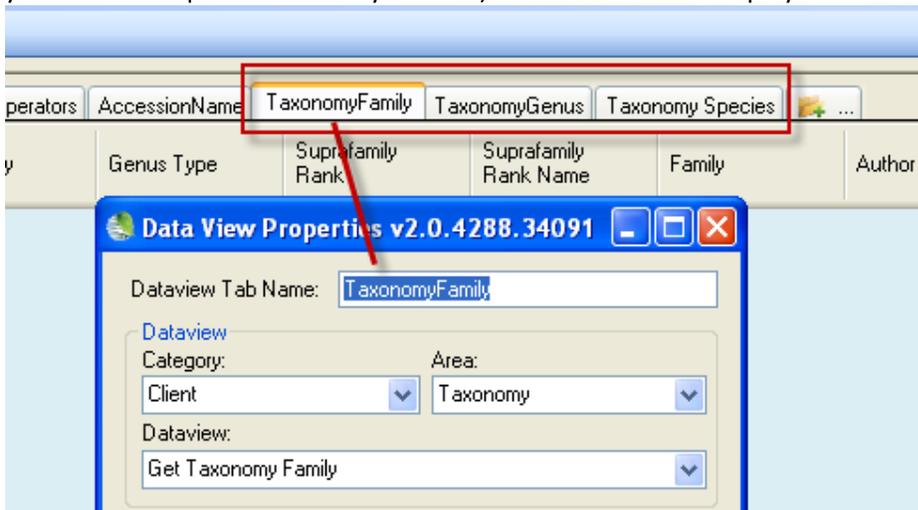
**Skip to Step 12 if your window was similar to the previous page's.**

Your GG database does not have the relevant Taxonomy records needed to handle *Phaseolus vulgaris* if the Curator Tool window displays the following window:



The Taxon field is a required field, expecting a match for the records being transferred with the existing Taxon data in the GG database. The message is indicating that the Taxon record for *Phaseolus vulgaris* doesn't exist. There are several ways to remedy this situation before continuing with step 12. The Administrator can use the Import Wizard's Import Taxonomy wizards (6a, 6b, and 6c) to add three related Taxonomy records: Family, Genus, and Species. Or you can do something similar in the Curator Tool.

In the Curator Tool, you must first cancel the saving of these accession records (and repeat step 11 after you add the requisite taxonomy records). You then need to display three additional tabs:



You need to add the following data:

Dataview	Fields to be Added	Data
Get Taxonomy Family	Family	<b>Fabaceae</b>
Get Taxonomy Genus	Genus Genus Common Name Family	<b>Phaseolus</b> <b>Phaseolus</b> <b>Fabaceae</b>
Get Taxonomy Species	Extended Genus Name Species:	<b>Phaseolus</b> <b>vulgaris</b>



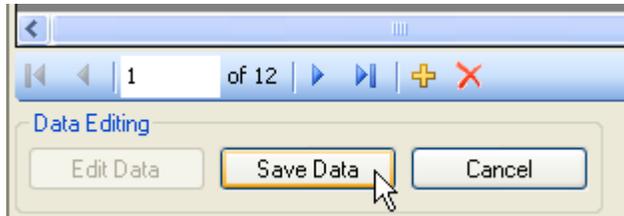
Alternatively, administrators with access to the Admin Tool can use the Import Wizard 6a, 6b, and 6c dataviews to import the taxonomy data. Remember that 6a uses the Family name in two columns, 6b uses the Genus in two columns and also requires the Family name, and 6c needs minimally four columns to be filled: Family, Genus, Species, and Taxonomic name (in this case, **Phaseolus vulgaris**).

*Repeat step 11 after the taxonomic data has been included in GRIN-Global.*

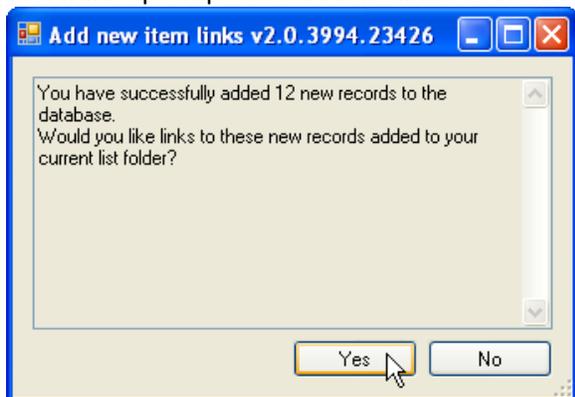
### Step 12:

Save the imported data now in the Curator Tool.

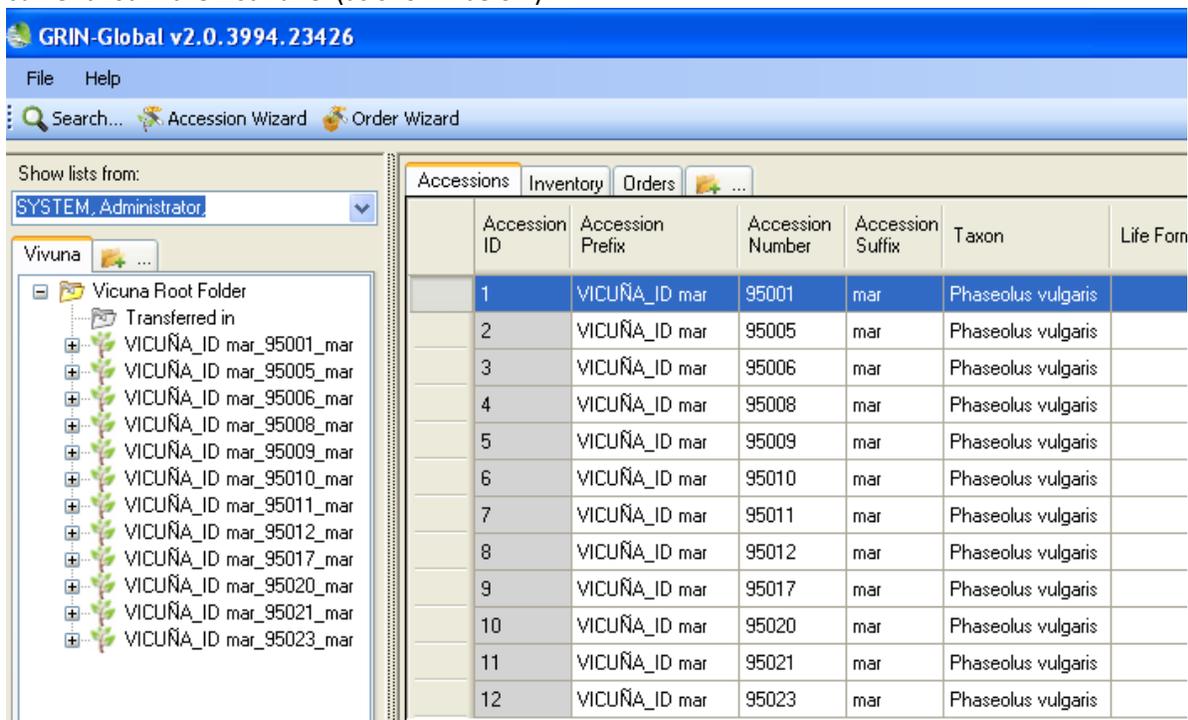
Click the **Save Data** button.



You will be prompted to add the links to these records; click **Yes**.



Note: If you had clicked **No**, the records would be added, but pointers would not be created under the current list in the List Panel (as shown below).



## Several Concluding Notes

In this exercise, you added 12 accession records to the Curator Tool from an existing spreadsheet. To do this, you matched your spreadsheet headings with the Curator Tool's column headings.

You used the Curator Tool to copy accession column names into a transfer spreadsheet. You could have manipulated the original spreadsheet, but it is usually a good idea to keep your source data intact and make an intermediate transfer spreadsheet. In the transfer sheet you name the column headings to match corresponding field names in the Curator Tool.

In some cases the data stored in an organization's files may not be in the same exact format as expected by GRIN-Global. For example, you saw in this exercise that the GRIN-Global **Taxon** field consisted of more than one data field; the source data consisted of genus and species. In the exercise you used the spreadsheet's **CONCATENATION** function to combine source data from two cells into one.

The accession records depend on existing taxonomy information to be in the system. If the accession records have a reference to taxonomic data ("Taxon") not already in GRIN-Global, you must first add the taxonomy records before you can add the accession records. Taxonomy uses three interdependent dataviews to relate the taxonomy family, genus, and species data.

If you have time, you might try repeating this exercise. If you do, will need to use different Accession Numbers or Accession Prefixes, otherwise you will be attempting to add duplicates (which the Curator Tool does not allow). We made the assumption that these records did not already exist in the Curator Tool. If they had, you would have received an error message indicating that these records were duplicates of existing records. In real life, as a standard procedure, or when you are uncertain that the records exist or not, first search in the Curator Tool before attempting to add new records. (We didn't show how to use Search in this exercise in order to simplify the exercise.)

Obviously, we copied just a few fields to simplify this exercise. We could have had a more elaborate exercise and transferred other accession fields, but ideally you understand the basics and can do that.

Earlier in the introduction we mentioned that there are two other methods for importing accession data into GRIN-Global. One method involves the GRIN-Global Admin Tool, which not every user has access to. That method involves several additional tables and fields and is a handy method for importing data. The second method is in the Curator Tool. The Curator Tool has an Accession Wizard which makes it possible to add not only accession data but also ten other related dataviews. (These other dataviews contain accession data and other accession-related information. Refer to the [accession wizard reference guide](#) on the GRIN-Global wiki training page for more information.