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United States  
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Interior

# Integrated Taxonomic Information System

## Taxonomic Workbench

### USER'S GUIDE

**Version 1.12**  
**October 1996**

*The Taxonomic Workbench is used for entering taxonomic information into the Integrated Taxonomic Information System (ITIS) relational database format and for modifying existing ITIS format files.*

*This documentation assumes that the user possesses the technical knowledge needed to collect the necessary data. The user is assumed to have basic computer skills.*

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# Introduction

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Guided by the Database Work Group and the Taxonomy Work Group, the Taxonomic Workbench (TWB) was developed by the USDA's National Information Technology Center in Fort Collins, Colorado. The Workbench is used for developing taxonomic information into the Integrated Taxonomic Information System (ITIS) relational database format and for modifying existing ITIS format files.

The Workbench was created using Visual Basic and Microsoft Access<sup>™</sup>. It is a windows-based software tool that uses standard Windows commands and menus. Key associations, such as valid names and synonyms are automatically made.

The Workbench features a taxonomy/nomenclature comparison function that allows you to compare taxonomic data files for selected criteria and generate lists of matching and non-matching data. The Workbench speeds up the data entry process and reduces the occurrence of non-uniform spellings by building choice lists for many of the data entry fields. Some of the fields where choice lists are available include authorities, valid names and ranks, parent names and ranks, and publication information.

## Problem Reporting

An Integrated Taxonomic Information System problem reporting system that will be accessible from the Internet is currently being developed. For now, descriptions of problems encountered with the Taxonomic Workbench can be E-mailed to:

**[itiswebmaster@itis.gov](mailto:itiswebmaster@itis.gov)**

## What Experience Do I Need?

You are assumed to have basic computer skills and a basic knowledge of ITIS.

## Conventions

### Using the Workbench

The Taxonomic Workbench is designed with the popular Windows “point and click” functionality made available by using a mouse. To use your mouse to make selections, move the mouse until the pointer on the window is on the desired selection, then click the left mouse button.

You can also use your keyboard to perform most of the Workbench functions.

Activate the menu bar at the top of the page by pressing **ALT**. Use the left and right arrow keys to move between menu items. Activate a pulldown menu by using the arrow keys to highlight a menu item and pressing **ENTER**. On windows, move between data entry fields and buttons by pressing **TAB**.

**NOTE: When you use the TAB key to access check boxes and circles, the boxes and circles do not appear highlighted; however, you can still check or uncheck the boxes by pressing the spacebar.**

Activate choice lists by pressing **F4**. Make selections on choice lists by using the up and down arrow keys to highlight your choice, then press **ENTER**.

### Moving Through Windows

When the Workbench is accessed, the Taxon window is displayed. You may enter data on any window, in any order, but you must always return to the Taxon window to save data. To access a window, click on the folder tab that has the desired window name.

### Access and Permissions

Access records from the Taxon window by selecting **ListView**, and then selecting a record.

On the Taxon window, the fields labeled Currency, Coverage and Credibility represent three ratings established by ITIS to certify its data. Only Taxonomic Work Group (TWG) members or their designees are allowed to enter data into the Currency, Coverage and Credibility data entry fields.

### Using On-line Help

To get help for a data entry field, click on the data entry field and press **F1**.

To get help for a window, click on the tab where the window name appears and press **F1**.

To choose a help topic, select **Help, Search For Help On....** In the Search dialog box, enter a word to search for, or select word(s) from the list of topics and select **Show Topics**. From the list of topics near the bottom of the dialog box, highlight a topic and select **Go To**. To exit help windows, select **File, Exit**.

### Using Choice Lists

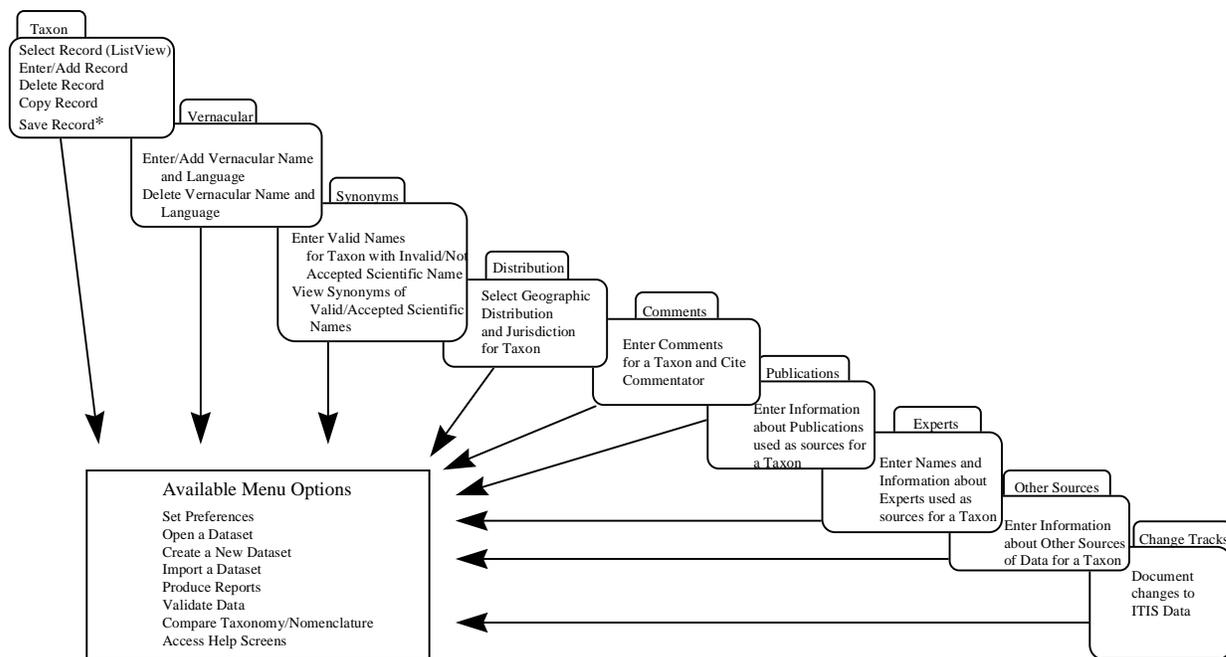
Data becomes available in choice lists as data is entered and saved. Access choice lists by either pressing **F4**, or by clicking on the arrow next to a data entry field.

### Printing Reports

Activate the Taxonomic Workbench Reports window by pressing **Ctrl+R**. Select the report you want to print. Reports are displayed on the window and can be sent to a printer by selecting **Print**. At present, you cannot print the report to a file. To exit the report, select **Exit**.



# Finding Your Way



\*Regardless of which screen you enter data in, you must always return to the Taxon screen to save your data entries.



# Procedures

---

## Installing the Taxonomic Workbench

The Taxonomic Workbench is a Microsoft Windows program and must be run under Windows 3.1. Although the Workbench runs under Windows 95, it has not been extensively tested in that environment.

**NOTE: The Workbench is shipped on two 3.5" diskettes. Most of the files are compressed to conserve space and simplify installation, so it is important to follow the setup instructions.**

### Install the Workbench

**NOTE: The setup program must be executed from Windows.**

Insert the distribution diskette labeled "Disk #1" into the appropriate disk drive. From the Windows Program Manager, select **File, Run**. In the Run dialog box, type **a:\setup** and click **OK**.

You are prompted to either verify the default installation subdirectory (c:\twb) by clicking **OK**, or to enter an installation subdirectory of your own choosing.

When prompted, remove Disk 1 and insert Disk 2.

When installation is complete, you will find the Taxonomic Workbench Program Group in your Windows Program Manager.

After you have thoroughly read the information contained in the Readme.txt file, you can access the Workbench by clicking twice in rapid succession on the Workbench icon.

### Post-Installation Information

Three of the files on the first distribution diskette (twb.exe, twb.hlp and readme.txt) are inserted into the installation directory (either c:\twb or the directory name you entered during installation). These files are the Workbench application, the Workbench's help file, and a readme file.

During installation, another application-related file, twb.ini, is placed in the Windows directory. The remainder of the files installed are Visual Basic files required for the execution of the application. They are inserted in the Windows\System subdirectory.



## Getting Started

Each time you access the Workbench, the Workbench uses information that you enter as Preferences to determine what default information to display. Default information includes the name of a dataset to work in, a kingdom and a rank.

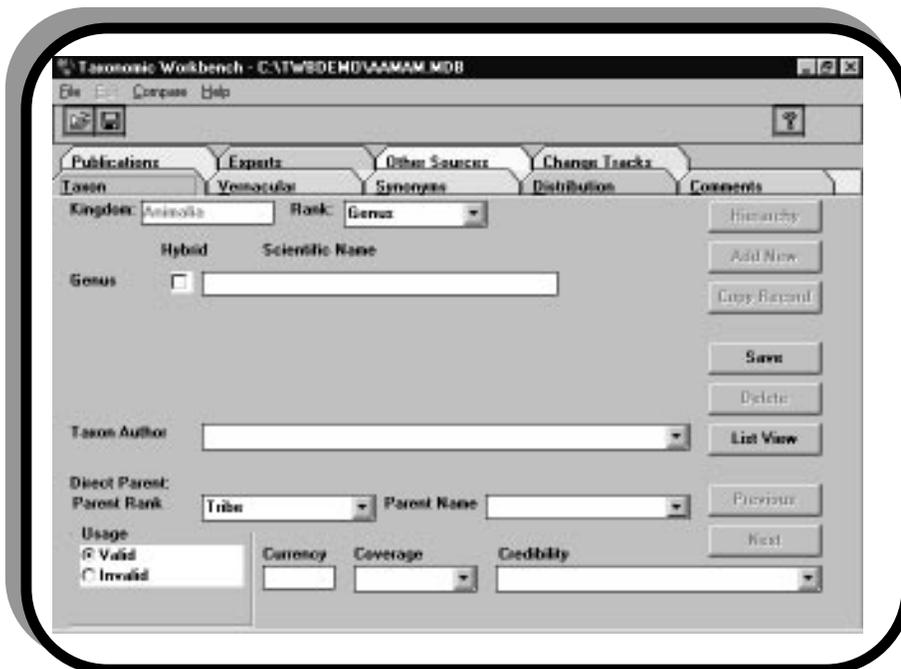
### Create A Data Set

Because you have not yet had the opportunity to set your preferences, the first time that you access the Taxonomic Workbench you are prompted to either select a data set to open or to create a new data set. Access the Workbench by clicking twice in rapid succession on the Workbench icon. Select **New**.

When prompted, enter an 8-character DOS filename (for example: new\_data). The Workbench adds the default extension .mdb to the filename. You may enter another extension at your own discretion.

### Select a Kingdom

When prompted, select a Kingdom. The Taxon window is displayed with the rank of Species automatically entered for you.

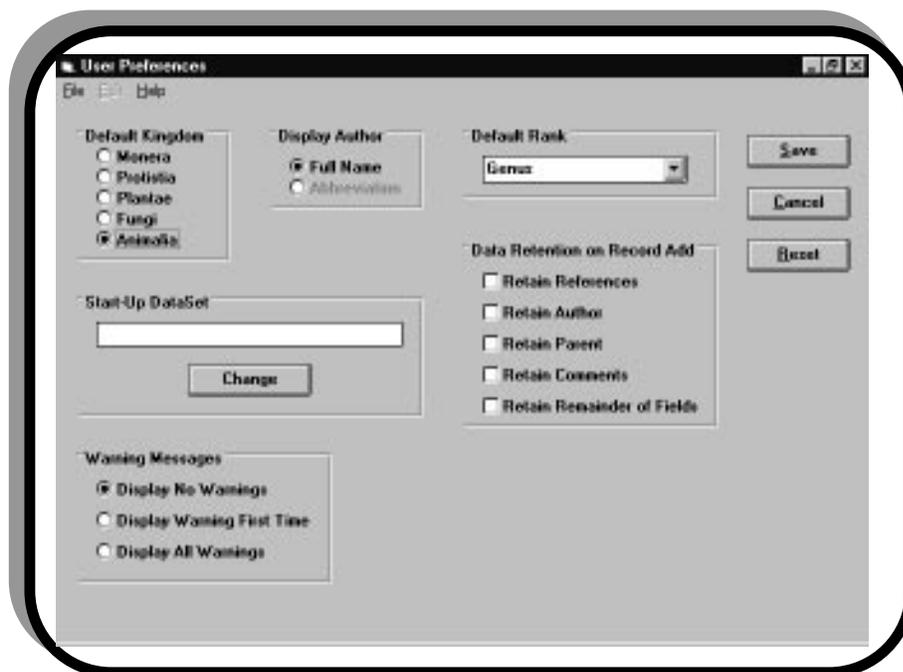


## Set Your Preferences

On the User Preferences window, you can specify a default Kingdom and Rank to work in, enter a default dataset, choose data to be retained on the window after saving a record and select how you want Warning Messages displayed. You may reset any or all of your preferences at any time while you are working in the Workbench.

**NOTE: When the Kingdom or Rank preferences are reset while you are working on a record, you may get unexpected results, including Workbench software failure.**

To access the User Preferences window, select **Preferences** under the **File** menu.



Select a Kingdom by clicking the circle next to your choice.

Select how authors' names are displayed by clicking on the circle next to your choice.

The default rank determines what level (or rank) of data is displayed in choice lists when you are entering data in the Workbench. Enter a default Rank or select a default Rank from the choice list (**F4**).

Enter or select the path and filename of the default dataset to be used each time you access the Workbench. To select or change the default dataset, access the Select Default DataSet dialog box by selecting **Change**. In the Select Default DataSet dialog box, select a directory, select the type of file you want from the List Files of Type list and select **OK**.



## PROCEDURES

Retaining data on the window after saving a record can reduce the amount of data entry required to add a record. Select data to be retained on the window when adding a new record by clicking the boxes next to your choices. Select how you want Warning Messages displayed by clicking on the circle next to your choice.

Save your preferences by selecting **Save**.

To clear your entries on the User Preferences window, select **Reset**.

To exit the User Preferences window without making changes, select **Cancel**.



## Importing Data

You can import taxonomic data in electronic form into the Workbench. Importing data can save you from having to retype it. Data can be imported from an import file that is provided to you, an import file that you construct, or from a file containing ITIS data that you downloaded from the Web.

You can download on-line ITIS data by accessing the ITIS database on the Web (<http://www.itis.usda.gov/itis/access.html>) and following the instructions provided on the *Download Data* Web pages. When you download data, you save the data to a file, which you then import by following the directions (*Importing a File into Workbench*) provided at the end of this section.

If you are importing data from a source other than the ITIS on-line database, then it has to be in standard ITIS import format. Not all users will have to place data in an import format; however, to ensure the format is documented for those persons who require it, we devoted much of this section to explaining how to create the import format.

## Creating an Import Format

The first row (called the header row) of the data file must provide the names of the data elements to be imported. There can only be one header row in the file. This header information must identify all data elements for which there is data even if all the records do not possess all of the elements listed in the header row. At a minimum, the data to be imported must include the data elements `unit_name1` and `rank_name`. A list of all the Workbench data elements is provided below:

<code>unit_ind1</code>	<code>geographic_value</code>	<code>isbn</code>
<code>unit_name1</code>	<code>jurisdiction_value</code>	<code>issn</code>
<code>unit_ind2</code>	<code>origin</code>	<code>pages</code>
<code>unit_name2</code>	<code>comment_detail</code>	<code>pub_comment</code>
<code>unit_ind3</code>	<code>commentator</code>	<code>expert</code>
<code>unit_name3</code>	<code>vernacular_name</code>	<code>exp_comment</code>
<code>unit_ind4</code>	<code>language</code>	<code>source</code>
<code>unit_name4</code>	<code>approved_ind</code>	<code>version</code>
<code>taxon_author</code>	<code>original_desc_ind</code>	<code>source_type</code>
<code>rank_name</code>	<code>reference_author</code>	<code>acquisition_date</code>
<code>tsn</code>	<code>title</code>	<code>source_comment</code>
<code>parent_tsn</code>	<code>publication_name</code>	<code>nodc_id</code>
<code>unnamed_taxon_ind</code>	<code>listed_pub_date</code>	<code>[parent_name]</code>
<code>usage</code>	<code>publisher</code>	<code>[accepted_name]</code>
<code>unacceptability_reason</code>	<code>pub_place</code>	<code>[hybrid_author]</code>



**NOTE: The data elements that appear in brackets are not defined within the ITIS Taxonomic Workbench database structure, but are meaningful when you are importing data into the Workbench. The import process uses the data that you enter for these elements and converts it into the Workbench's internal format. When you use these data elements, make sure that you include the brackets in the header row only. The following list defines the kind of data that should be entered for the bracketed data elements:**

- **parent\_name** - the taxonomic name, including author, for the direct parent of the of the taxon being entered.
- **accepted\_name** - the taxonomic name, including author, of the accepted (Plants) or valid (Animals) taxon to which a not accepted (Plants) or invalid (Animals) taxon must be associated. A link to an accepted or valid name is required by ITIS for entries identified as synonyms, homonyms, etc. The Data Dictionary should be consulted under the data elements, usage and unacceptability\_reason, for further clarification.
- **hybrid\_author** - the name of the author(s) associated with the taxonomic name identified in the second part of a hybrid formula.

Import data must be in a format resembling a spreadsheet. Each line corresponds to one record. The data elements comprising a record must be separated by a special character called a delimiter. The delimiter marks the beginning and end of a unit of data. Each data element position identified in the header row must be delimited even if no value exists for a given record. You can choose from one of the following characters to serve as the delimiter: , (comma), | (pipe), / (slash), \ (back slash), ! (exclamation point), @ (at), # (pound), \$ (dollar), % (percent), ^ (carat), & (ampersand), : (colon), ; (semi-colon), ? (question mark).

Data that contains commas, spaces, or other special characters should be enclosed in double quotation marks (") or single quotation marks ('). If these enclosures are not used, each row of data must begin and end with the delimiter.

**NOTE: The rest of this section contains examples of how data appears in the import format. Some of the lines of data within the examples have been wrapped into two lines in order to accommodate the format of this manual. All lines of data that have been wrapped into two lines have a delimiter at the end of the first line.**

The following example illustrates how you would create a header and enter data in import format.

EXAMPLE:

First, we'll build our header row of data elements enclosed by double quotations characters (") and use a comma (,) as our delimiter:

```
"unit_name1","unit_name2","taxon_author","vernacular_name","rank_name","[parent_name]"
```



Next, we'll use the following list of data...

Phylum Chordata  
 Cryptobranchus alleganiensis (Daudin, 1803) Hellbender  
 Siren intermedia Barnes, 1826 Lesser siren  
 Notophthalmus Rafinesque, 1820 North American newts

...and create records (each row is one record) under the header we built:

```
"unit_name1","unit_name2","taxon_author","vernacular_name","rank_name","[parent name]"
"Chordata",,,, "Phylum",
"Cryptobranchus","alleganiensis","(Daudin, 1803)","Hellbender","Species","Pseudobranchus
Gray,1825"
"Siren","intermedia","Barnes, 1826","Lesser siren","Species","Siren Linnaeus, 1766"
"Notophthalmus","Rafinesque, 1820","North American newts","Genus","Salamandridae"
```

## Order of Data

**Records.** To establish an appropriate link in the database, Taxon data from the highest classification level (Kingdom) should be entered first; enter additional data progressively from that highest level. See the section titled *Entering Taxon Information* (Entering Parent Name) for additional guidance.

**Data Elements.** Most of the data elements can be entered in any order. Some, however, must be entered in groups, and in a certain order. For example, a jurisdiction\_value must immediately precede origin. This is required in order to maintain the proper associations among the data. Here are the data elements that must appear in the order in which we have written them:

```
comment_detail, commentator
jurisdiction_value, origin
usage, unacceptability_reason, [accepted_name]
vernacular name, language, approved_ind, reference_author, title, publication_name,
listed_pub_date, actual_pub_date, publisher, pub_place, isbn, issn, pages, pub_comment
```

OR

```
vernacular_name, language, approved_ind, source_type, source, version, acquisition_date,
source_comment
```

OR

```
vernacular_name, language, approved_ind, expert, exp_comment
```

In the last case, if the vernacular\_name is an approved vernacular, reference information must be included. To establish the proper link between the vernacular and its reference, the data must be grouped together, otherwise it might be interpreted as a reference to the taxonomic name (taxonomic\_unit in ITIS terms). An example of how data might be entered in this case is provided on the next page.

## PROCEDURES

### EXAMPLE:

First, we'll build our header row of data elements. For this example, we won't enclose the data and we'll use the pipe (|) as the delimiter.

```
|unit_name1|unit_name2|unit_ind3|unit_name3|taxon_author|usage|unacceptability_reason|
|accepted_name||rank_name|
```

Next, we'll use the following list of data...

```
Abies bifolia A. Murray bis
Abies lasiocarpa var. arizonica (Merriam) Lemmon
  Abies arizonica Merriam
Abies lasiocarpa var. lasiocarpa (Hook.) Nutt.
  Abies balsamea ssp. lasiocarpa (Hook.) Boivin
```

...and create records (each row is one record) under the header we built:

```
|unit_name1|unit_name2|unit_ind3|unit_name3|taxon_author|usage|unacceptability_reason| | |
|accepted_name||rank_name|
|Abies|bifolia|A. Murray bis|||accepted|||Species|
|Abies|lasiocarpa|var.|arizonica|(Merriam) Lemmon|accepted|||Variety|
|Abies|arizonica|Merriam|||not accepted|synonym|Abies lasiocarpa var. arizonica (Merriam)
Lemmon|Species|
|Abies|lasiocarpa|var.|lasiocarpa|(Hook.) Nutt.|accepted|||Variety|
|Abies|balsamea|ssp.|lasiocarpa|(Hook.) Boivin|not accepted|synonym|Abies lasiocarpa var. lasiocarpa
(Hook.) Nutt.|Subspecies|
```

### **Repeatable Data**

Some attributes of the ITIS taxonomic\_unit (taxon) have multiple values. In these cases, enter the data element names in the header row for each number of times the value(s) are repeated. The elements or sets of elements that can be repeated within ITIS are:

```
comment_detail, commentator
geographic_value
jurisdiction_value, origin
vernacular_name, language
[accepted_name]
reference_author, title, publication_name, listed_pub_date, actual_pub_date, publisher,
pub_place, isbn, issn, pages, pub_comment
source_type, source, version, acquisition_date, source_comment
expert, expert_comment
```

### EXAMPLE:

First, we'll build our header row of data elements enclosed by double quotations characters (") and a delimited with a comma (,):

```
"unit_name1","unit_name2","rank_name","taxon_author","geographic_value","geographic_value",
"geographic_value","geographic_value",
```



Next, we'll use the following list of data...

<u>Name</u>	<u>Biogeographical Range</u>
Alofa sodalis White 1878	Africa, Oceania
Cimex lectularius Linnaeus 1758	Africa, Australia, Oceania, Antarctica/Southern Ocean
Nertha rugosa Desjardins 1837	Africa

...and create records (each row is one record) under the header we built:

```
"unit_name1","unit_name2","rank_name","taxon_author","geographic_value","geographic_value",
  "geographic_value", "geographic_value",
"Alofa","sodalis","Species","White 1878","Africa","Oceania",,
"Cimex","lectularius","Species","Linnaeus 1758","Africa","Australia","Oceania","Antarctica/Southern
  Ocean"
"Nertha","rugosa","Species","Desjardins 1837","Africa",,,
```

Once a file has been created in the format we have discussed in this section, you are ready to import a standard ITIS import format file.

## Importing a File into the Workbench

The time it takes to import data varies depending on how many records are being imported. Also, when importing a large database, each subsequent record takes a little longer to import than the previously imported record. On average, it has been our experience that the Workbench can import as many as 5,000 records in one hour. The length of time that the import process takes depends on the data that is in each record; you may find our import time estimates inaccurate because of the data you are importing. If you need to import a large database (6,000-7,000 records), you may want to start the import process at the end of the work day before you go home. At present, the maximum number of names that can be imported into the Workbench is 32,727.

From any Workbench window, select **File** from the **Import** menu.

On the Import Data File dialog box, select the Import Format of the file you are importing (either Standard ITIS Import Format or ITIS On-line Format).

If you selected Standard ITIS Import Format, use the choice lists (**F4**) to select the type of delimiter and the type of enclosure used in the file to be imported. If you select ITIS On-line Format, you are not allowed to select a delimiter and enclosure type. Select **OK**.

On the Open Import Format Data File dialog box, enter the path and filename of the file to be imported, or select a filename to import. Files to be imported can have any extension. Select **OK**.

The Workbench advises you when the import process is complete, and advises you when there are errors in the import process. If errors occur, you are prompted to view the error log.

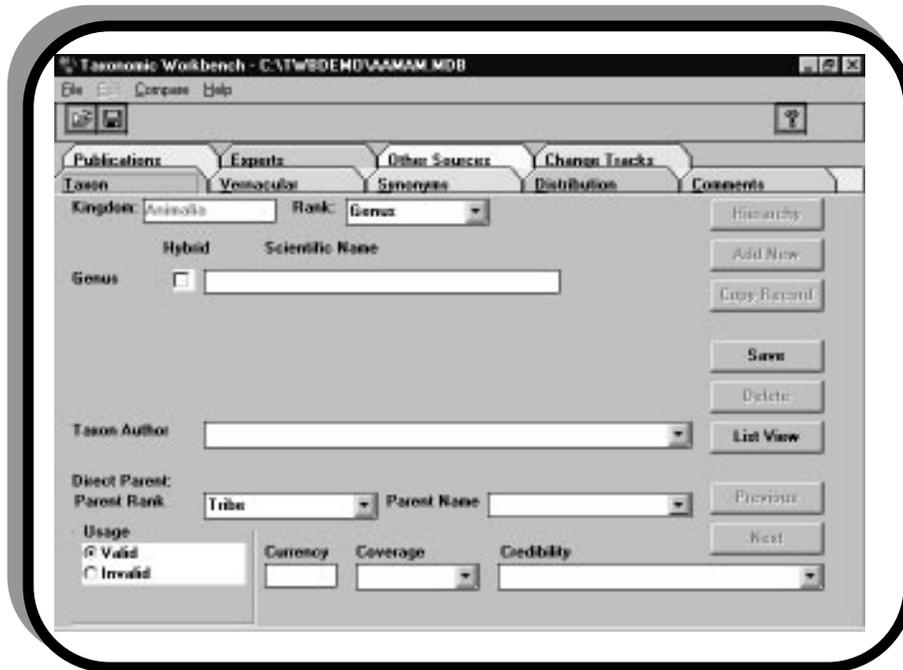


## Entering Taxon Information

### Enter a Taxon Record

#### Entering Kingdom and Rank

When you access the Workbench, the Taxon window is displayed in data entry mode.



If you selected a default Kingdom and Rank when you set your preferences, those selections are displayed in the Kingdom and Rank fields at the top of the Taxon window. To change the Kingdom, reset your preferences. To change the Rank, use the choice list (**F4**) to select a Rank.

When you select a rank of Genus or above, one Scientific Name data entry field is displayed. When you select Species as the rank, two Scientific Name data entry fields are displayed. Selecting the rank Subspecies displays three data entry fields, while choosing the rank Variety displays four data entry fields.

If there are existing records in the dataset in which you are working that require additional data entry, access those records by selecting **ListView**, and then select a record.

#### Entering Hybrid Formulas

For ranks of Genus and below, Hybrid indicator boxes are displayed. The TWB supports hybrid formulas for X Genus, X Genus Species, Genus X Species and Genus Species X Genus Species. Enter a hybrid by clicking on the Hybrid indicator box to assign the appropriate hybrid formula.

When the rank “Species” is selected, you can enter a specific level of hybrid by clicking on the unlabeled box located below the Species Hybrid indicator box (the third Hybrid box from the top



of the window). When the third box is checked, the label “Genus” appears next to it and additional Scientific Name data entry lines are displayed.

**EXAMPLE:**

To enter a hybrid formula comprised of Genus1 Species1 X Genus2 Species2, enter Genus1 and Species1, then check the third (unlabeled) Hybrid indicator box. In the two additional Scientific Name fields that are displayed, enter Genus2 and Species2.

**Entering an Unnamed Taxon**

When you are working in the Plant Kingdom, an Unnamed Taxon check-box is displayed. If you are entering a non-standard name, click on the Unnamed Taxon check-box.

**EXAMPLE:**

An example of a non-standard name is *Arabis sp. nov. /ined. (Del Norte, Curry Cos.)*

**Entering a Taxon Author**

Enter the Taxon Author (authority) in accordance with the rules of the Kingdom that appears in the Kingdom field at the top of the window. An authority (Taxon Author) is required for Taxon records with a rank of Species or lower. When working with previously entered data, access the Taxon Author choice list (F4). If the author you need to enter is not on the choice list, type the author’s name into the Taxon Author field. The name you enter is added to the choice list.

**Entering A Hybrid Author**

If you enter a Hybrid formula representing Genus1 Species1 X Genus2 Species2, then you are required to enter a second Taxon Author for Genus2 Species2. See *Entering a Taxon Author*.

**Entering Parent Rank**

The Parent Rank displayed is the rank that immediately precedes the rank entered for the Taxon. Parent Rank is a required entry. Change the Parent Rank by selecting a rank from the choice list (F4) or by entering the rank in the field. Choices available for this field vary, depending on the kingdom in which you are working.

**Entering Parent Name**

**NOTE: A Parent Name can only be entered/selected if it already exists in the database. This can appear to be a dichotomy, but it is resolved because of the way Taxon information is intended to be entered. Taxon data is entered starting at the classification level of Kingdom; additional data is entered progressively from that highest level. Therefore, the parent name exists in the database when records containing the parent name have been previously entered or imported. The Parent Name field is required prior to exporting data; however, if the Parent Name does not yet exist in the database, the field can initially be left blank. Once other records that contain the parent name are entered, then this record can be accessed and updated to include that name.**



In the Parent Name field, enter the parent name, or select the appropriate name from the choice list (F4).

### Entering Usage

The Usage fields indicate the status of the Scientific Name you entered. For a variety of reasons, such as a misspelling or because the name is actually a synonym, the Scientific Name for an animal may be Invalid (Not Accepted for plants). Usage is a required entry.

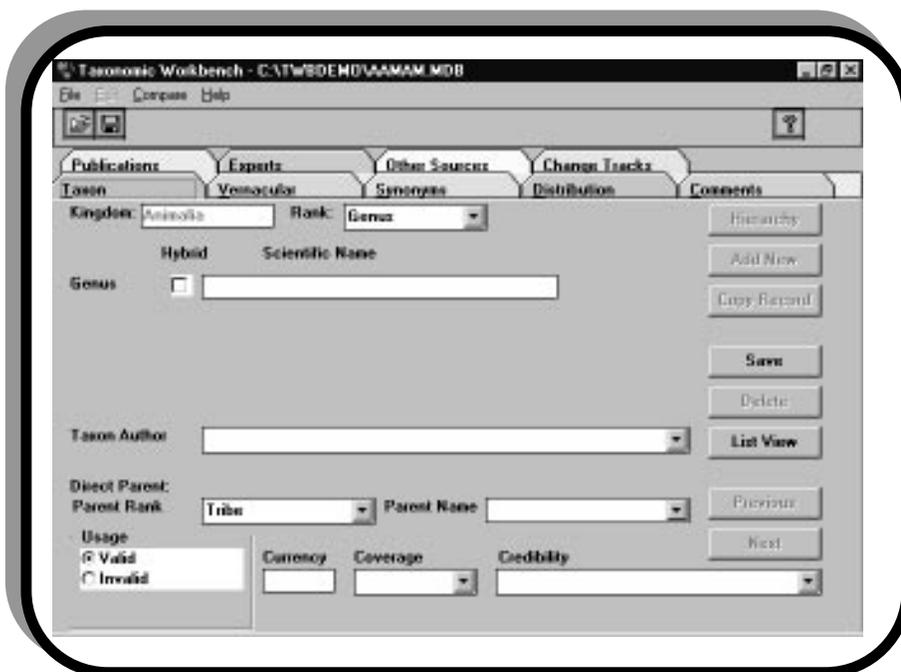
Indicate whether the usage of the Scientific Name is valid/invalid or accepted/not accepted by clicking on the circle next to the appropriate label. When Invalid or Not Accepted are checked, then an additional data entry field for entering the reason is displayed in the Usage box. If you select Invalid or Not Accepted, you are required to select a reason from the choice list (F4).

**NOTE: An invalid/not accepted Taxon is required to have an association with valid/accepted Taxon. For instructions on establishing this association, see the section *Add/Delete a Valid/Accepted Association for an Invalid/Not Accepted Taxon*.**

### Entering Currency, Coverage and Credibility

Currency, Coverage and Credibility are three ratings established by ITIS to certify its data. Only Taxonomic Work Groups (TWG) members or their designees are allowed to enter data into the Currency, Coverage and Credibility data entry fields.

Currency and Coverage data entry fields are displayed for ranks of Genus or above and are required entries. The Credibility field is a required entry and is displayed for all ranks.



Enter Currency by typing in a specific year. If the year is unknown, enter **unknown**.

Enter Coverage and Credibility by typing data into the field or selecting data from choice lists (**F4**).

To save your entries, select **Save**.

## Edit a Taxon Record

Access a list of records by selecting **ListView**. On the ListView window, select a record. Enter data or select from choice lists (**F4**). For information about specific fields, see the previous section, *Entering Taxon Information*.

## Copy a Record

A record must be entered or selected (**ListView**). To retain all data from the most recently displayed record, press Copy Record. You are required to change the Scientific Name, Author, or Rank in order to save the information as a new record.

## Access Previous Record

A record must be entered or selected (**ListView**). For Species and below, the previous alphabetical record with the corresponding parent of the current record is displayed. For Genus and above, the previous alphabetical record with the same rank is displayed. If no such record exists, you are returned to the most recently displayed record.

## Access Next Record

A record must be entered or selected (**ListView**). For Species and below, the next record in alphabetical succession with the corresponding parent of the current record is displayed. For Genus and above, the next record in alphabetical succession with the same rank is displayed. If no such record exists, you are returned to the most recently displayed record.

## Clear Data Entry Fields

When a record has been entered or selected, you can clear all of the data entry fields in preparation for entering a new record by pressing **Add New**.

## Delete a Record

Access a list of records by selecting **ListView**. On the ListView window, select a record. To remove the record from the data set, press **Delete** and respond when prompted to confirm the deletion.

**NOTE: You cannot delete a record that is hierarchically situated above other records. For example, you want to delete a family, but have entered genera and species associated with that family. To delete the family, all the genera and species associated with that family must first be deleted or assigned to another family.**

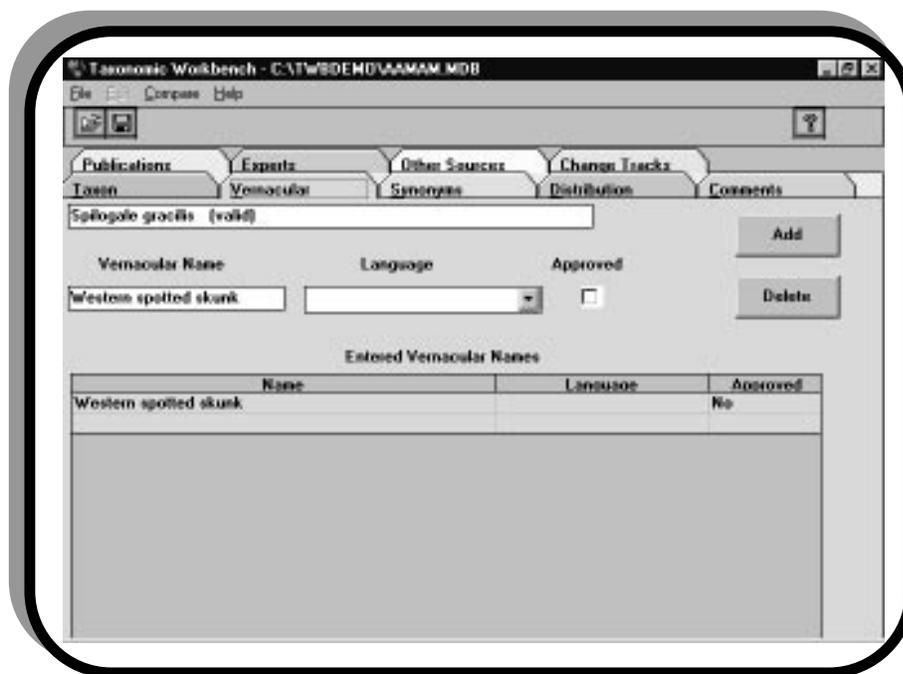
## Saving the Taxon Record

Select **Save**.



## Add, Modify or Delete Vernaculars Associated with a Taxon

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, select the **Vernacular** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



### Entering a Vernacular Name

In the Vernacular data entry field, type in the vernacular name. In the Language field, enter the language in which the vernacular originated. To indicate that the vernacular is authorized for use by regulation, statute, or by other appropriate convention, click on the **Approved** checkbox. To add the vernacular and associated information, press **Add**.

### Editing a Vernacular Name

In the Entered Vernacular Names window, select a vernacular name. In the data entry fields labeled Vernacular Name, Language, and Approved, make changes as needed.

### Deleting the Vernacular Name

In the Entered Vernacular Names window, select a vernacular and press **Delete**.

### Saving Your Changes

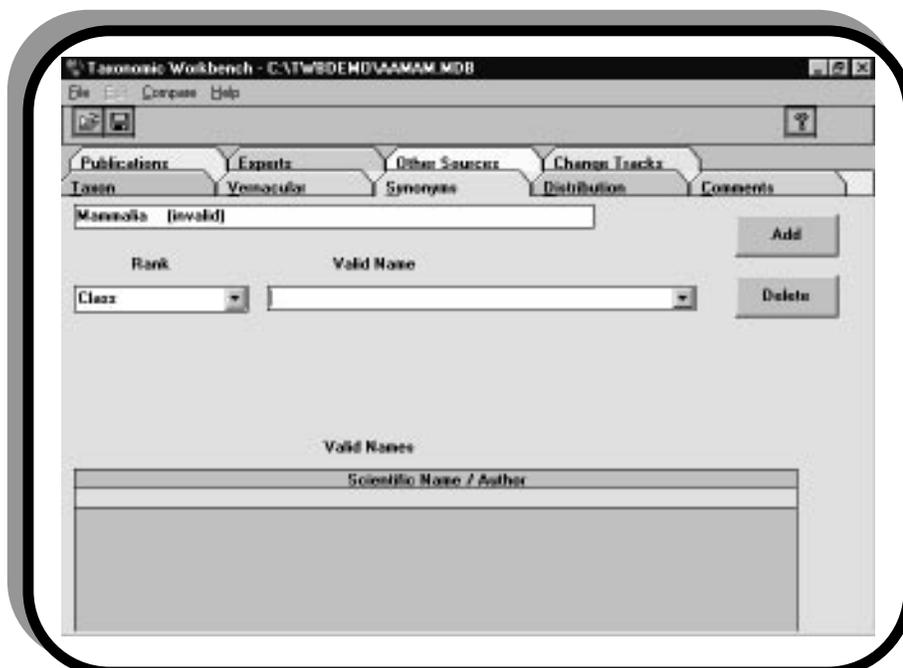
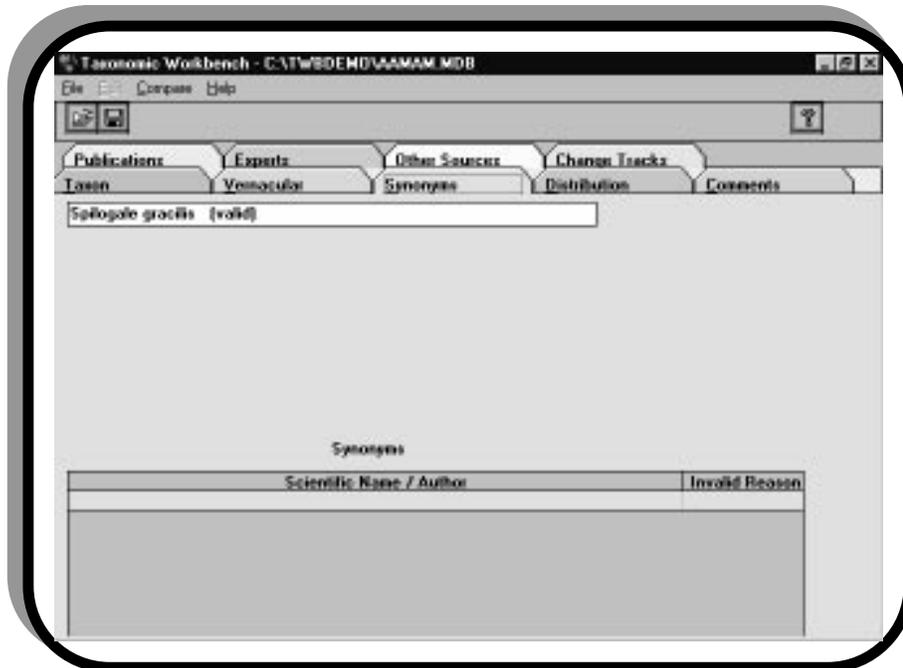
Return to the Taxon window. Press **Save**.

## Add/Delete a Valid/Accepted Association for an Invalid/Not Accepted Taxon

An invalid/not accepted Taxon must be associated with a valid/accepted Taxon.

### Access a Taxon Record

On the Taxon window, enter or access (**ListView**) a record for an invalid/not accepted Taxon, then select the **Synonyms** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



**Add Association (Valid/Accepted Name)**

To add an association for an invalid/not accepted Taxon, enter a valid rank, or select a valid rank from the choice list (**F4**). Next, select a Valid/Accepted Name from the choice list (**F4**). Add the association by selecting **Add**.

**Delete Association (Valid/Accepted Name)**

To delete an association (Valid/Accepted Name) for an invalid/not accepted Taxon, in the Synonyms window, select the Scientific Name/Author to be deleted. Select **Delete**.

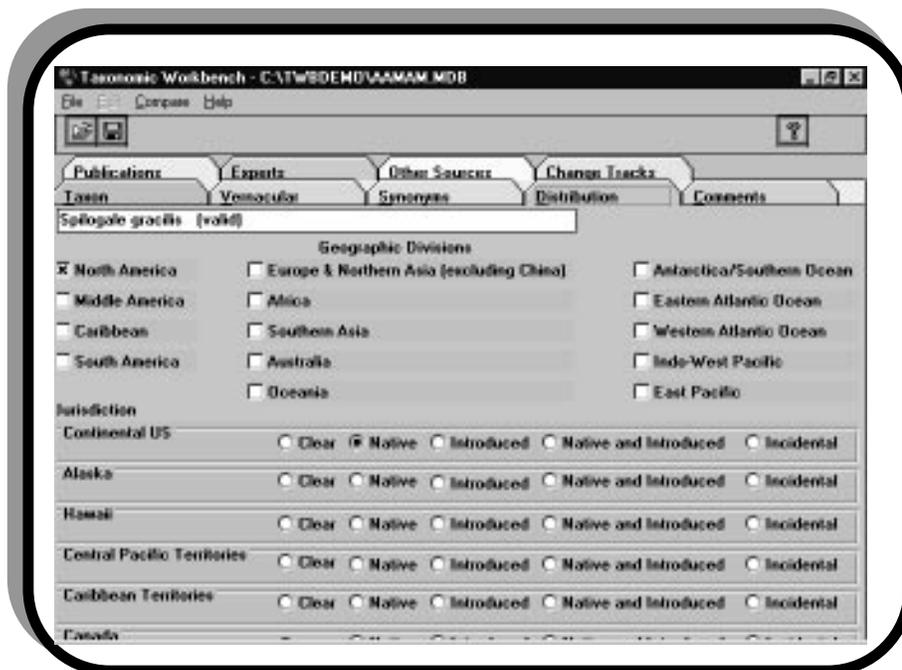
**Saving Your Entries**

Return to the Taxon window. Press **Save**.



## Identify Geographic Divisions/Jurisdictional Data Associated with Current Taxon Record

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, select the **Distribution** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



### Select Geographic Division(s)

You can select as many Geographic Divisions as needed. Select a Geographic Division by clicking on the checkbox next to a division. For more detailed information about Geographic Divisions, select any Geographic Divisions checkbox and press **F1**.

### Select Jurisdiction

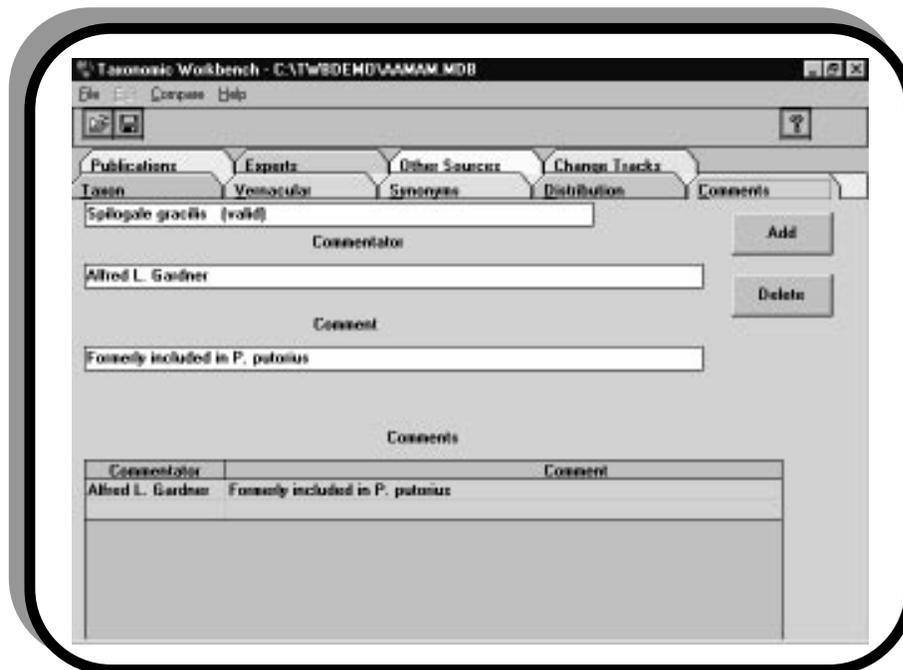
You can select one type of origin (Native, Introduced, Native and Introduced, Incidental) for each Jurisdiction. Select jurisdictional data by clicking on the checkbox next to the appropriate data. For more detailed information about Jurisdiction, select any Jurisdiction checkbox and press **F1**.

### Saving Your Entries

Return to the Taxon window. Press **Save**.

## Enter Comments for a Taxon

The Comments window allows you to enter comments that are pertinent to the Taxon, that do not fit the associated categories of data currently implemented in the ITIS. After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Comments window by selecting the **Comments** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



### Enter Comments

In the Commentator data entry field, enter your name, or the name of the person to whom the comment should be attributed.

In the Comment field, enter the comments.

### Edit Comments

In the Comments window, select a comment to edit. In the Commentator field and the Comment field, change text as needed. To add the edited comment to the record, press **Add**.

### Delete Comments

In the Comments window, select a comment to delete. To delete the comment, press **Delete**.

### Saving Your Entries

Return to the Taxon window. Press **Save**.

## Enter/Add a Publication Reference for Current Taxon

ITIS requires that a reference be associated with every Taxon that is entered. A reference can be a publication, an expert, and/or another source.

**TIP:** If you are adding several records from the same publication, select the retain references check box on the Preferences window (see *Set Your Preferences*). This step will save you from having to re-enter much of the publication information. Keep in mind that after you choose to retain references in the User Preference window, the Workbench continues to use the same reference for all subsequent entries until the publication is changed, or until the retain references checkbox is deselected in the User Preferences window.

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Publications window by selecting the **Publications** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

### Enter Publication Information

In the Author field enter the name of the author, or select an author from the choice list (**F4**).

In the Actual Date field enter the publication date (DD/MM/YYYY) for the publication or select a date from the choice list (**F4**). The actual publication date must be either the same date or a later date than the listed publication date.

In the Listed Date field, if the listed date of the publication is different than the actual publication date, enter the listed date (DD/MM/YYYY). The listed date must be either the same date or an earlier date than the actual publication date. If the day and month are not known or are not applicable, enter **01/01/YYYY**.



If applicable, in the Title field enter the title of an article or the chapter where the reference occurs in the publication, or select from the choice list (**F4**).

In the Publication field, enter the name of the publication, including volume and number, if applicable.

In the Publisher field, enter the Publisher's name.

In the Location Field, enter the name of the city, state, or country where the publication is published.

In the ISBN field, enter the ISBN number of a cited book when an ISBN is available.

In the ISSN field, enter the ISSN number of a cited book when an ISSN number is available.

In the Pages field, enter the page numbers or page range where the reference occurs.

In the Comments field, enter comments that are pertinent to the publication being cited.

Select **Add**. Return to the Taxon window and select **Save Changes**.

### **Edit Publication Information**

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Publications window by selecting the **Publications** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

From the Publications Names window, select a reference. Edit entries as needed. Select **Modify**. Return to the Taxon window and select **Save**.

### **Delete a Publication Reference**

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Publications window by selecting the **Publications** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

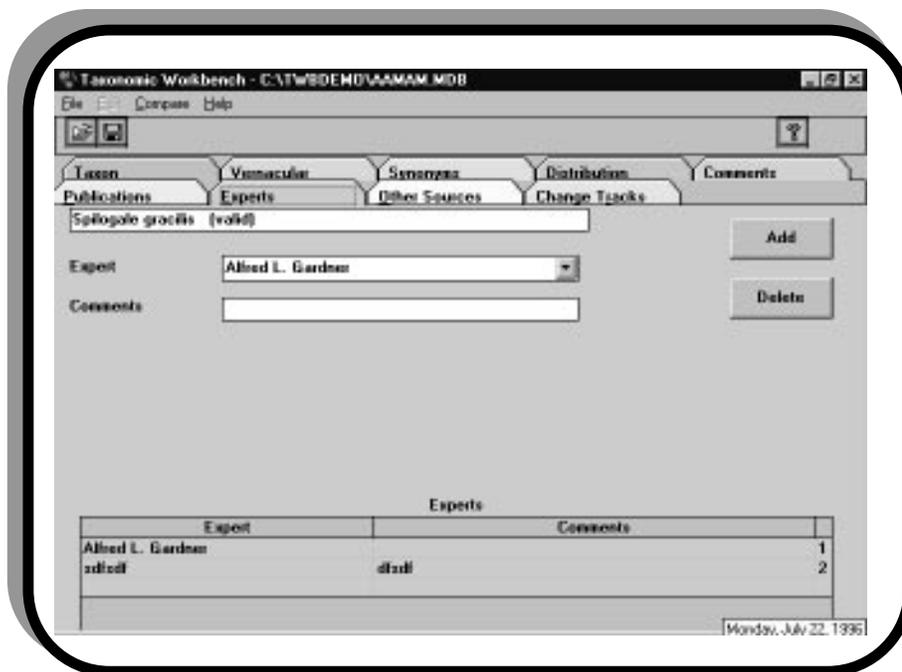
From the Publications Names window, select a reference. Select **Delete**. Return to the Taxon window and select **Save Changes**.



## Enter/Add, Edit or Delete Experts Reference for a Taxon

ITIS requires that a reference be associated with every Taxon that is entered. A reference can be a publication, an expert, or other sources.

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Experts window by selecting the **Experts** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



### Enter Expert Name and Comments

In the Expert field, enter the name of the expert being cited, or select an expert from the choice list (**F4**).

In the Comments field, enter comments that are pertinent to the expert being cited.

Select **Add**. Return to the Taxon window and select **Save Changes**.

### Editing an Expert Reference

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Experts window by selecting the **Experts** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

In the Experts Names window, select a name by using the cursor to highlight a line and clicking the left mouse button. Edit entries as needed. Select **Add**. Return to the Taxon window and select **Save**.

**Deleting an Expert Reference**

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Experts window by selecting the **Experts** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

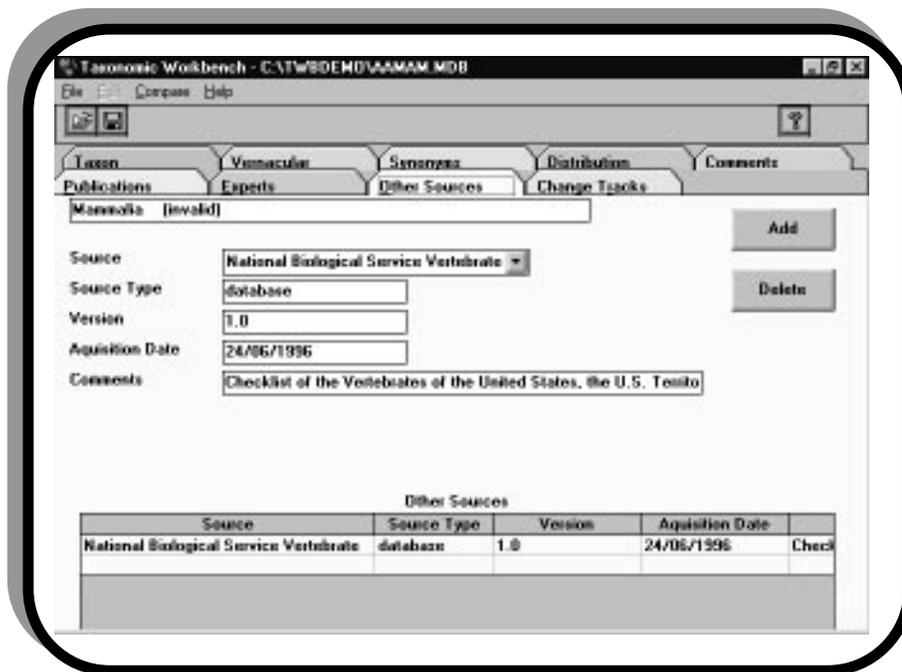
In the Experts Names window, select a name by using the cursor to highlight a line and clicking the left mouse button. Select **Delete**. Return to the Taxon window and select **Save Changes**.

## Enter/Add, Edit or Delete Data Sources for a Taxon

ITIS requires that a reference be associated with every Taxon that is entered. A reference can be a publication, an expert, or other sources of data. Other sources that are not publications or experts are entered on the Other Sources window; examples of possible other sources include NODC, PLANTS, BIOTA, and ZOO Record.

### Entering/Adding a Data Source for Current Taxon

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, access the Other Sources window by selecting the **Other Sources** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.



In the Source field, enter the source to be associated with the Taxon, or select a source from the choice list (**F4**).

In the Source Type field, enter the kind of other source.

In the Version field, enter a version number or another descriptor to identify the source.

In the Acquisition field, enter the date ITIS acquired the data from the source. Enter date in the format DD/MM/YYYY. If the date is unknown, enter **01/01/YYYY**.

In the Comment field, enter comments pertinent to the entered source.

Select **Add**. Return to the Taxon window and select **Save**.

**Editing a Source**

After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, select the **Other Sources** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

In the Other Sources window, select a source by using the cursor to highlight a line and clicking the left mouse button. Edit entries as needed. Select **Add**. Return to the Taxon window and select **Save Changes**.

**Deleting a Source**

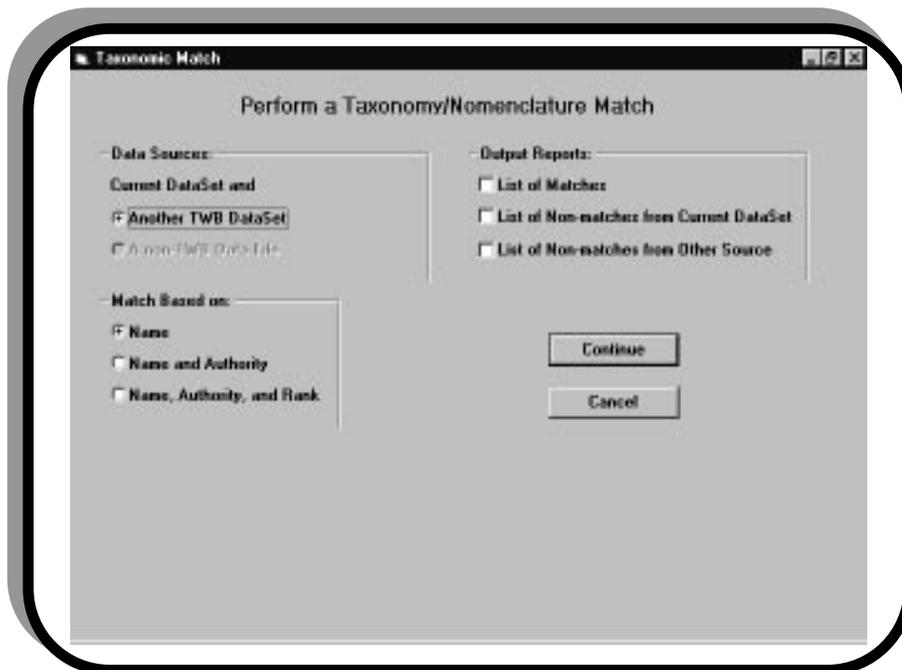
After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, select the **Other Sources** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window.

From the Other Sources window, select a source by using the cursor to highlight a line and clicking the left mouse button. Select **Delete**. Return to the Taxon window and select **Save Changes**.

## Matching Taxonomy/Nomenclature

You can use this feature to compare datasets, allowing you to ascertain the changes made to a dataset.

Select **Compare, Taxonomy**.



In the Taxonomic Match dialog box, determine whether you want a match based on Names, Name and Authority, or Name, Authority, and Rank. Check the appropriate circle.

Determine whether you want Output Reports that provide a List of Matches, a List of Non-matches from Current DataSet, or a List of Non-matches from Other Source. Check each appropriate box (multiple boxes may be selected).

After selecting the criteria for comparison and the reports you want, select **Continue**.

A dialog box appears. Enter or select a dataset to compare against the current dataset and select **OK**.

Each report you selected is displayed on the window. If you selected all three reports, they are displayed in layers; when you exit the first report that appears on the window, the next report is displayed, and so on.

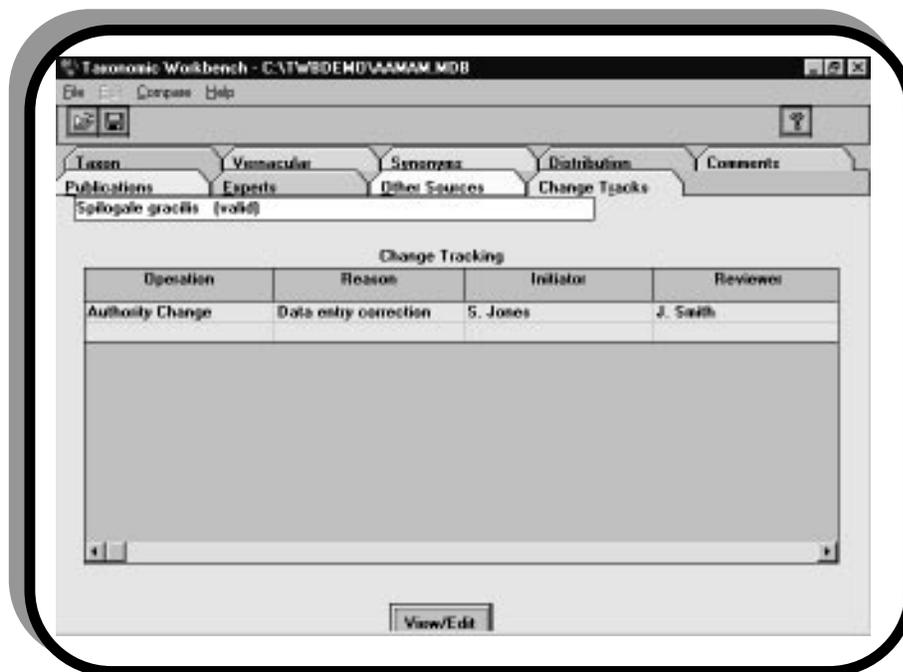
Each report can be sent to a printer by selecting **Print**. The ability to print to a file is not implemented.



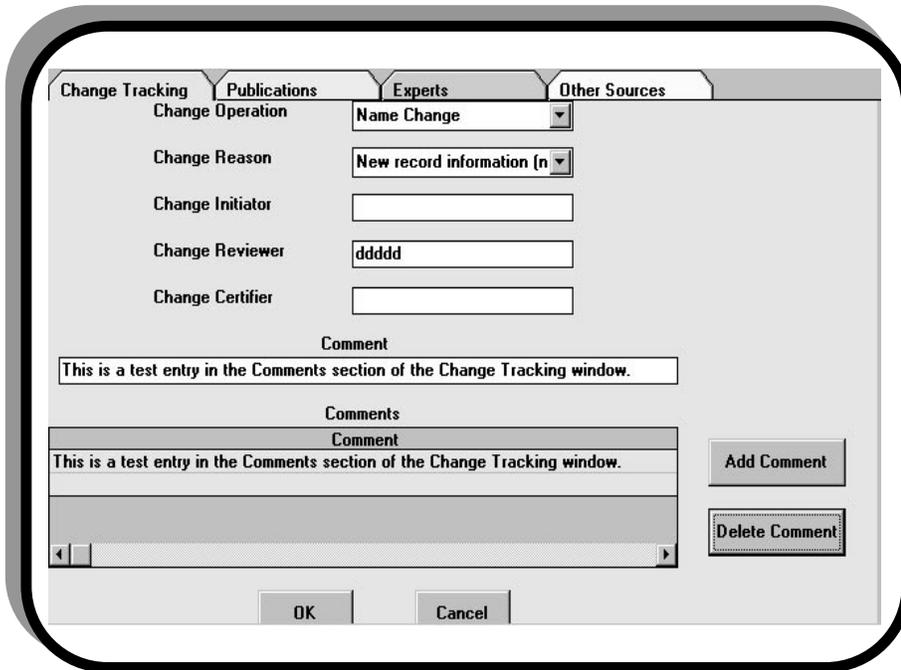
## Changing ITIS On-line Data

Change Tracks and its associated windows are designed to maintain a log of changes made to records, thus maintaining the credibility of data. When the Authority, Name, Rank, Parent, and/or Usage for a record are changed, the Workbench automatically accesses the Change Tracking window so that you can document those changes. Change Tracking only affects records that have already been entered and saved in the ITIS. (Change Tracking is only permitted for records that have a taxonomic serial number; this number is assigned when a record is saved in the ITIS.)

Changes previously made to a Taxon record can be viewed or edited. After entering, editing or accessing (**ListView**) a Taxon record that contains previous changes, select the **Change Tracks** Tab. The Scientific Name for the Taxon is displayed at the top of the window. You cannot edit the Scientific Name from this window. A spreadsheet near the bottom of the window displays changes made to a record.



To access the Change Tracking window, highlight a row of data in the spreadsheet and select **View/Edit**.



On the Change Tracking window, the following fields can be edited by entering data or by making selections from choice lists (F4):

**Change Operation:** describes which data within a record is being changed.

**Change Reason:** describes why data is being changed.

**Change Initiator:** provides the name of the person who initiated the data change.

**Change Reviewer:** provides the name of the person who has reviewed the data change.

**Change Certifier:** provides the name of the person who has certified the data change.

**Comments:** allows entry of comments pertinent to the data change.

### Add a Comment

In the Comment data entry field, type in comments pertinent to the data change(s) and press **Add Comment**. The entered comment is added to the spreadsheet at the bottom of the window.

### Delete a Comment

In the Comments spreadsheet at the bottom of the window, highlight a comment you want to delete and press **Delete Comment**.

### Save Changes

On the Change Tracking window, select **OK**. Return to the Taxon window by selecting the **Taxon** tab. On the Taxon window, select **Save Changes**.

## Enter or Edit a Reference for Data Change

ITIS requires that a reference be associated with every data change that is entered for a Taxon record. A reference can be a publication, an expert, or other sources.

### Enter or Edit a Publication Reference for a Data Change

On the Taxon window, access the desired record (**ListView**) and then select the **Change Tracks** tab. On the Change Tracks window, access the Change Tracking window by highlighting a row in the spreadsheet and pressing **View/Edit**. The Change Tracking window and the tabs for accessing reference windows are displayed. Select the **Publications** tab.

To enter, edit or delete references on this page, refer to the instructions provided in the section titled *Enter/Add a Publication Reference for Current Taxon*.

### Enter or Edit an Expert Reference for a Data Change

On the Taxon window, access the desired record (**ListView**) and then select the **Change Tracks** tab. On the Change Tracks window, access the Change Tracking window by highlighting a row in the spreadsheet and pressing **View/Edit**. The Change Tracking window and the tabs for accessing reference windows are displayed. Select the **Experts** tab.

To enter, edit or delete references on this page, refer to the instructions provided in the section titled *Enter/Add, Edit or Delete Experts Reference for a Taxon*.

### Enter/Add, Edit or Delete Data Sources for a Data Change

On the Taxon window, access the desired record (**ListView**) and then select the **Change Tracks** tab. On the Change Tracks window, access the Change Tracking window by highlighting a row in the spreadsheet and pressing **View/Edit**. The Change Tracking window and the tabs for accessing reference windows are displayed. Select the **Other Sources** tab.

To enter, edit or delete references on this page, refer to the instructions provided in the section titled *Enter/Add, Edit or Delete Data Sources for a Taxon*.

### Saving Entries or Edits

Select the **Change Tracking** tab. On the Change Tracking window, select **OK**. Return to the Taxon window by selecting the **Taxon** tab. On the Taxon window, select **Save Changes**.



## Producing Reports

### Print a Taxon Record

A record must be selected. After entering, editing, or accessing (**ListView**) a Taxon record from the Taxon window, select **File, Reports, Record**.

The Taxon Record Report is displayed on the window. To send the report to the printer, select **Print**. You cannot print a report to a file. This functionality is not implemented.

### Print a List of Taxons and their Synonyms

Select **File, Reports, TaxList**.

The Entered Taxon And Their Synonyms report is displayed on the window. Send the report to the printer by selecting **Print**. You cannot print a report to a file. This functionality is not implemented.



## Validating Data

Any time records have been entered, edited, or deleted, the dataset containing those records should be validated. In addition, a dataset must be validated prior to being exported to the ITIS On-line System.

### Validating a Data Set

From any Workbench window, select **File, Validate**.

On the dialog box that appears, enter or select the filename of the dataset you want validated. Select **OK**.

In the DataSet Validation dialog box, begin the validation process by selecting **Continue**. To cancel the validation, press **Cancel**.

When validation is complete, a dialog box appears, notifies you if there are errors within the dataset, and asks you if you want to view the error log.

The error log notifies you of empty data entry fields where data is required. For example, you may have entered data for a Taxon and left the Credibility field on the Taxon window blank. The error log will notify you that a credibility rating is required for all Taxons. Records that appear in the validation error log should be corrected. Incorrect data prevents the Taxon record from being exported to the ITIS On-line System.

To view the error log, select **OK**. The Validation Error Log window is displayed.

To save the error log to a file, select **Save Log As**.

**NOTE: You must save the error log to the current working directory.**

In the dialog box that is displayed, enter or select a filename for the error log and select **OK**.

To close the error log, select **Exit**.

### Correcting Data

Access Taxon records listed in the error log and make corrections to the records as indicated in the error log. Data that is not corrected will prevent the Taxon record from being exported to the ITIS On-line System.



## Exporting Data

After data is validated, you can export data to a file. You can export an entire dataset, a partial dataset that includes only Name, Authority and Rank, or you can export a dataset that is intended for the ITIS On-line System.

Not all users will have to become knowledgeable about the Workbench Import/Export Format in order to export data (see *Exporting a File from the Workbench* at end of this section). However, because it is crucial to ensure that the Workbench and the ITIS On-line System use the same format for data transfer and storage, and to ensure the format is documented for those persons who require it, we devoted much of this section to providing the Taxonomic Workbench Internal Import/Export format.

## Workbench Internal Import/Export Format Information

The following table is not imported or exported, so there isn't a format defined in Workbench for this table:

[RV] Reviews

The capital letters inside the brackets, such as [RV] in the previous table, are called "tags," and must be placed before each record. The tag for each table is provided below. The remainder of the tables are provided below in the Taxonomic Workbench Internal Import/Export format:

Change Comments

[CC]wb\_change\_track\_id|change\_track\_id|chg\_cmt\_id|change\_detail|

Change Links

[CT]wb\_change\_track\_id|change\_track\_id|old\_tsn|change\_reason|change\_initiator|  
change\_reviewer|change\_certifier|change\_time\_stamp|tsn|wb\_id

Change Operations

[CO]wb\_change\_track\_id|change\_op\_id|change\_track\_id|

Comments

[CM]wb\_comment\_id|comment\_id|commentator|comment\_detail|comment\_time\_stamp|

TU Comments Link

[CL]wb\_id|wb\_comment\_id|tsn|comment\_id|

Experts

[EX]expert\_id\_prefix|wb\_expert\_id|expert\_id|expert|exp\_comment|

Geographic Division

[GD]wb\_id|geographic\_value|tsn|

## Jurisdiction

[JR]wb\_id|jurisdiction\_value|origin|tsn|

## NODC Ids

[NO]nodc\_id|tsn|wb\_id|

## Other Sources

[OS]source\_id\_prefix|wb\_source\_id|source\_id|source\_type|source|version|acquisition\_date|  
source\_comment|

## Publications

[PB]publication\_id\_prefix|wb\_publication\_id|publication\_id|reference\_author|title|  
publication\_name|listed\_pub\_date|actual\_pub\_date|publisher|pub\_place|isbn|issn|pages|  
pub\_comment|

## Reference Links

[RF]wb\_id|wb\_documentation\_id\_prefix|wb\_documentation\_id|tsn|doc\_id\_prefix|  
documentation\_id|original\_desc\_ind|initial\_itis\_desc\_ind|wb\_change\_track\_id|  
vernacular\_name|

## Synonym Links

[SY]wb\_id|wb\_id\_accepted|tsn|tsn\_accepted|

## Taxonomic Authors Lookup

[TA]wb\_taxon\_author\_id|taxon\_author\_id|taxon\_author|kingdom\_id|

## Taxonomic Units

[TU]wb\_id|tsn|unit\_name1|unit\_ind2|unit\_name2|unit\_ind3|unit\_name3|unit\_ind4|unit\_name4|  
unnamed\_taxon\_ind|usage|unacceptability\_reason|taxonomic\_credibility\_rating|  
taxonomic\_completeness\_rating|currency\_rating|phylo\_sort\_sequence|initial\_time\_stamp|  
parent\_tsn|parent\_wb\_id|taxon\_author\_id|wb\_taxon\_author\_id|hybrid\_author\_id|kingdom\_id|  
rank\_id|

## Vernaculars

[VR]wb\_id|vernacular\_name|tsn|language|approved\_ind|

**NOTE: When a record is exported and there is no value for a field, the “pipe” symbol (|) is still in the exported data. For example, a vernacular record with no tsn, language, or approved\_ind could look like this: [VR]968|Rosey Newt|||**



## Exporting a File from the Workbench

### Export Entire Dataset

From any window, select **File, Export**. Select **DataSet**. On the Save Exported DataSet As dialog box, enter or select a filename for the exported data. Select **OK**. You are returned to the Export DataSet to File window. Select **Continue**.

You are notified when the export process is complete. Exit dialog box and the export process by selecting **OK**.

### Export Partial Dataset

From any window, select **File, Export**. Select **Partial DataSet**. The Taxonomic Compare Export Type dialog box appears. Select the type of data (either “Name,” “Name and Authority,” or “Name, Authority, and Rank”) to export. Select **Continue**.

On the Save Taxonomy As dialog box, enter or select a filename for the exported data. Select **OK**. The Export Taxonomy Data to File window appears. Select **Continue**.

You are notified when the export process is complete. Exit the export window and the export process by selecting **OK**.

### Export Data for ITIS On-line System

From any window, select **File, Export**. Select **For On-line ITIS System**. On the Save Exported DataSet As dialog box, enter or select a filename for the exported data and select **OK**. On the Export DataSet for On-line System window, select **Continue**.

When export is complete, you are notified of the number of records that were successfully exported, notified if an error log has been created, and asked if you want to view the error log.

### View Error Log

The error log notifies you of data entry fields where data is required but that may not contain data. For example, you may have entered data for a Taxon and left the Credibility field on the Taxon window blank. In that case, the error log will notify you that a credibility rating is required for all Taxons. Errors that were noted in the validation process but not corrected prior to exporting the data will appear in this log.



# Troubleshooting

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## Known Problems and Solutions

This section contains known problems encountered by Taxonomic Workbench users.

### Application Failure Due to Inconsistent/Multiple Kingdoms

When users select a Kingdom in User Preferences and then open and work in a database for a different Kingdom, the Workbench is likely to fail. When you need to work in a database for a Kingdom other than the one specified in your preferences, change your User Preferences prior to opening the database.

### Record Retrieval Problem

Occasionally, especially when adding or modifying records, you may get a “No current record” message and are automatically exited out of the Workbench.

This problem occurs when entered data exceeds the number of characters allowed in a field; because the entry is too long, the data is truncated in the database. When the Workbench attempts to retrieve the entered record using the originally entered data as selection criteria, the application is unable to find a match and no record is retrieved. The application erroneously assumes that a record ID was retrieved, attempts to use it, and then you receive the “No current record” message and are exited out of the application.

## Glossary

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### **Accepted Name**

The scientific name of an accepted Taxon used within the Plant Kingdom.

### **Actual Date**

The date when a printed reference was published; this data may or may not correspond with publication's listed date. This date must be either the same date or a later date than the listed publication date and must be entered in the format of DD/MM/YYYY.

### **Acquisition Date**

The date that ITIS acquired data from a source other than a publication or expert.

### **Approved**

Used to indicate that a vernacular name has been authorized for use by regulation, statute, etc.

### **Author**

Writer(s) of a published reference.

### **Comment**

On the Comments window, "Comments" are additional information that is pertinent to a Taxon. On the Publications window, the term refers to remarks associated with the printed reference being cited. On the Experts window, the term refers to remarks made by or associated with a taxonomic expert who is providing credence to the taxonomy, nomenclature or attributes of a Taxon. On the Other Sources window, the term refers to remarks that are associated with the source (other than a person or publication) who provided information to ITIS.

### **Commentator**

The name of the person associated with a comment that is entered regarding a Taxon.

**Completeness** (*See* Taxonomic Completeness Rating)

**Credibility** (*See* Taxonomic Credibility Rating)

### **Currency Rating**

A designation reflecting the year of revision/source for a group. This rating is attached to ranks of genus and above. Enter in YYYY format. If unknown, enter the word "unknown."

### **Database Work Group**

A technical work group directed by a Steering Committee formed by a partnership of federal agencies who work together to satisfy a mutual need for scientifically credible taxonomic information. This technical work group is responsible for the ITIS database design and overseeing development of the system to meet the requirements of the interagency partners. The partners in this effort include the National Oceanic and Atmospheric Administration, Department of Interior, National Biological Service, Geological Survey, Environmental Protection Agency, Department of Agriculture, Agriculture Research Service, Natural Resources Conservation Service, Smithsonian Institution and the National Museum of Natural History.

### **Delimiter**

A special character that marks the beginning and end of each piece of data for the Workbench import/export format.





**Direct Parent Name**

The scientific name of a Taxon's closest parent as defined by its kingdom's rank rules

**Direct Parent Rank**

The rank of a Taxon's closest parent as defined by its kingdom rank rules.

**Enclosure**

A special character used to isolate a piece of data for the Workbench import/export format. Isolating (enclosing) data is helpful when data contains punctuation (commas, etc.) or spaces. Delimiters must still be used even when data is enclosed.

**Expert**

The name of the taxonomic expert providing credence to the taxonomy, nomenclature or attributes of a Taxon.

**Geographic Division**

A label that designates geographic divisions as identified by the ITIS Taxonomic Work Group.

**Hybrid**

Indicates to the Taxonomic Workbench that a hybrid formula is being entered.

**ISBN**

An International Standard Book Number (ISBN) is assigned to each book by its publisher under a system set up by the R. R. Bowker Co. It uniquely identifies the book, thus facilitating handling orders and computer inventory. The ISBN usually appears on the copyright page of a book and on the book jacket. If a book has been issued in both hardcover and paperback editions, a separate ISBN is assigned to each. When a work comprises two or more volumes, a separate ISBN may be assigned to each volume. If the work is sold only as a set, one ISBN may be used for the whole set.

**ISSN**

An International Standard Serial Number (ISSN) is assigned to serial publications (annuals, monthlies, etc.) instead of an ISBN. The ISSN remains the same for each issue of the publication and is printed either on the copyright notice page for the publication, or on the page containing the instructions for ordering the publication.

**Jurisdiction**

A label that signifies a U.S. and Canada jurisdictional unit as defined by the ITIS Taxonomic Work Group.

**Language**

Used within the Workbench to identify the native language in which the vernacular name originated (e.g. American, English, Russian, Spanish, etc.).

**Listed Date**

The date printed on a journal or other printed reference. The listed date must be either the same date or an earlier date than the actual publication date.

**Location**

The city, state or country where a printed reference was published.

**Original Description**

Used in conjunction with a publication reference. When this box is checked, it indicates that the publication being referenced represents the original description of a Taxon.

**Rank**

The label associated with the specific level of a taxonomic hierarchy



**Scientific Name**

A scientifically accepted label for a Taxon.

**Source**

The name of who provided the information (other than a person or publication) to ITIS. (For example, NODC, PLANTS, BIOTA, and ZOO Record could all be possible information providers).

**Source Type**

Designates the kind of data processing/storage system that supplied information to the ITIS. (For example, if the information came from a database, then “database” would be entered as the source type.)

**Taxon Author**

The author(s) associated with the name of a Taxon.

**Taxonomic Completeness Rating**

A designation reflecting the extent of taxonomic completeness or coverage for a group. This rating is attached to the ranks of genus and above.

**Taxonomic Credibility Rating**

A subjective designation as determined by the Taxonomic Work Group reflecting the level of review and the perceived level of accuracy for a Taxon and its associated attributes. This rating is attached to all ranks.

**Taxonomy Work Group**

A technical work group directed by a Steering Committee formed by a partnership of federal agencies who work together to satisfy a mutual need for scientifically credible taxonomic information. This technical work group is responsible for the integrity and quality of the ITIS database information. The partners in this effort include the National Oceanic and Atmospheric Administration, Department of Interior, National Biological Service, Geological Survey, Environmental Protection Agency, Department of Agriculture, Agriculture Research Service, Natural Resources Conservation Service, Smithsonian Institution and the National Museum of Natural History.

**Unnamed Taxon**

A Taxon name that does not follow the rules for a scientific name but is still maintained in a dataset. Unnamed Taxons are only supported in the Plant Kingdom.

**Usage**

Indicates whether the name entered in the Scientific Name data entry field is currently considered to be the scientifically authorized label for a Taxon.

**Validate**

A Workbench process that allows you to check your data set to ensure that it complies with completeness and consistency rules that must be satisfied before data can be placed in the ITIS On-line database.

**Valid Name**

The scientifically valid (authorized) label for a Taxon.

**Vernacular Name**

A common name associated with a Taxon.

**Version**

A number, date, or other identifying characteristic for the data processing/storage system that was entered as the source type.



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