



# Morpho Activity

Start Entering/Practicing with  
real data



# Morpho Activity



- The following slides are set up to take you step by step through the process of creating a data package in morpho
- If you have any questions please feel free to ask the facilitators.



# Register with KNB



- To begin register as a user at the KNB site

<http://knb.ecoinformatics.org/index.jsp>

- Scroll down the page until you find the login & registration box in lower left of the page
- Click on the link create a new account
- Write down your username, organization and password as you will use this in Morpho**

login & registration

Logging into your account enables you to search any additional, non-public data for which you may have access privileges:

**You are NOT logged in**

username:

organization:

password:

Login

[create a new account](#)

[forgot your password?](#)

[change your password](#)



# Downloading & Installing Morpho



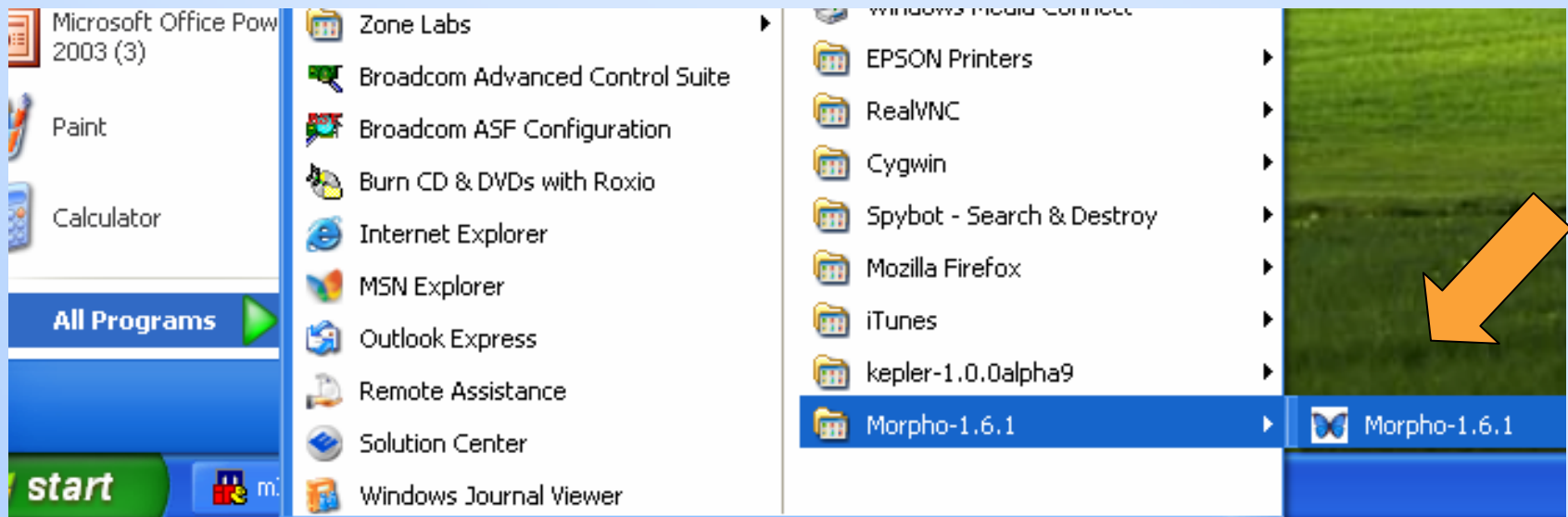
- Next go to <http://knb.ecoinformatics.org/morphoportal.jsp> to download the most recent version of morpho.
- Download Morpho with Java.
- There is an installer that will walk you through the installation.



# Opening Morpho

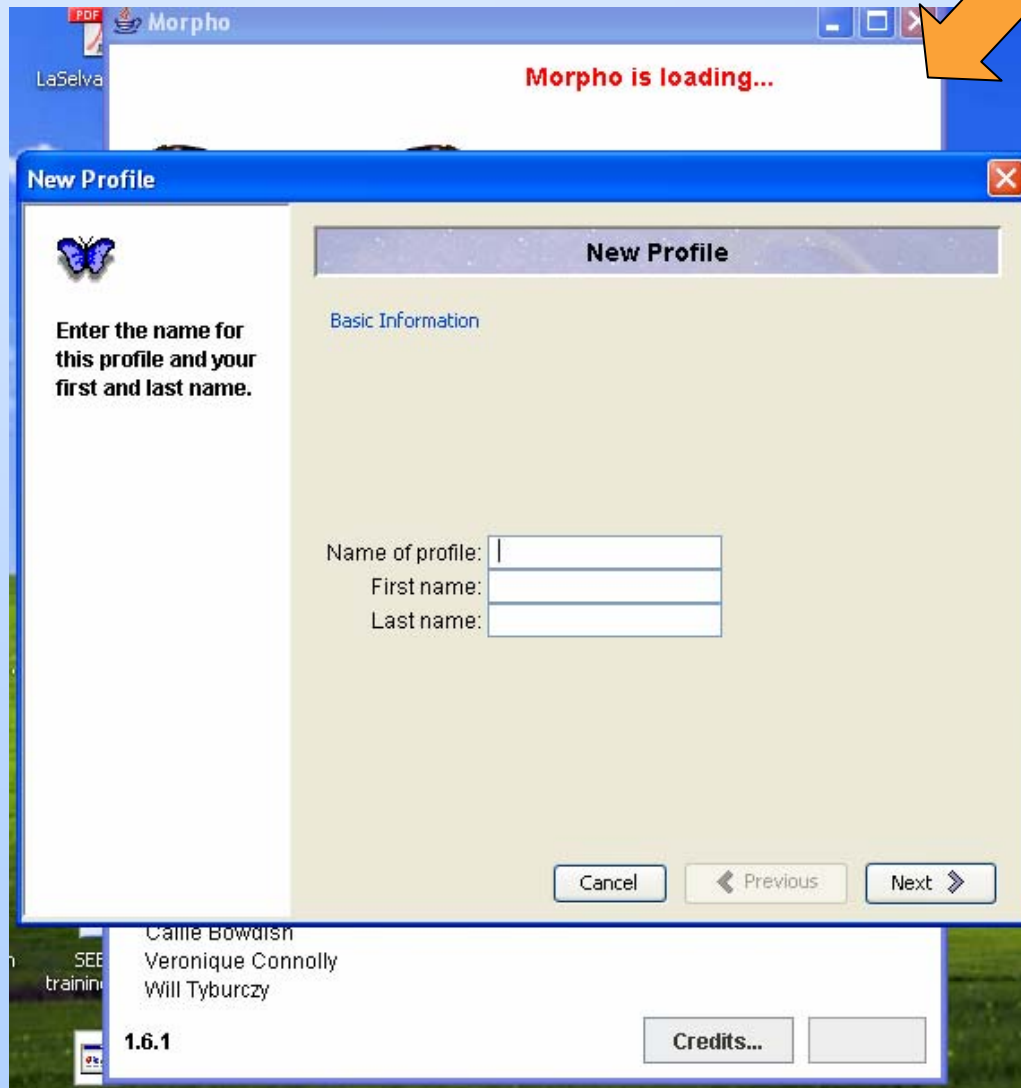


- Once you have installed Morpho. Locate Morpho in your program file and start the application.





# Opening Morpho



- When you open Morpho for the first time two windows will open: a splash screen and a new profile window.



# Creating a profile



- Enter a name for the profile
  - Suggested: first initial and last name (wtyburczy)
- Enter your name
- Hit "Next"

The screenshot shows a window titled "New Profile". On the left side, there is a small butterfly icon and the text: "Enter the name for this profile and your first and last name." The main area on the right is titled "New Profile" and "Basic Information". It contains three input fields: "Name of profile:", "First name:", and "Last name:". At the bottom right, there are three buttons: "Cancel", "Previous", and "Next".



# Creating a profile



- Enter the username and affiliation of your KNB account
- Hit "Next"
- This is the same username, and organization you created on the KNB site

New Profile

**New Profile**

Network Account Information

Username:

Organization: NCEAS  
LTER  
OBFS





# Creating a profile



- Select an identifier prefix
  - Usually the same as your account username
  - Used as the first part of the name of your data packages
- Hit "Finished"



The screenshot shows a 'New Profile' dialog box with a title bar containing three window control buttons. On the left side, there is a small blue butterfly icon and a text block that reads: 'Enter a short identifier prefix for this profile. All data packages you create under this profile will bear this identifier prefix. For example, using the prefix 'jane\_doe', data packages will have names like jane\_doe.1.1, jane\_doe.2.1, etc.' The right side of the dialog has a header 'New Profile' and a section 'Data Package Identification'. Below this section is a text input field labeled 'Identifier prefix:' containing the text 'wtyburczy'. At the bottom right, there are three buttons: 'Cancel', '< Previous', and 'Finished'.



- A screen will open asking you for your password.
- This is the same password that you created on the KNB site

New Profile

t  
efix for  
All data  
ou creat  
rofile wi  
ntifier  
xample,  
efix  
lata  
ill have  
1,  
1, etc.


 **Network Login** 

**Network Login**

Enter your Network password in order to log in.

Name uid=sromanello,o=LTER,dc=ecoinformatics,dc=org

Password



Login

Logout

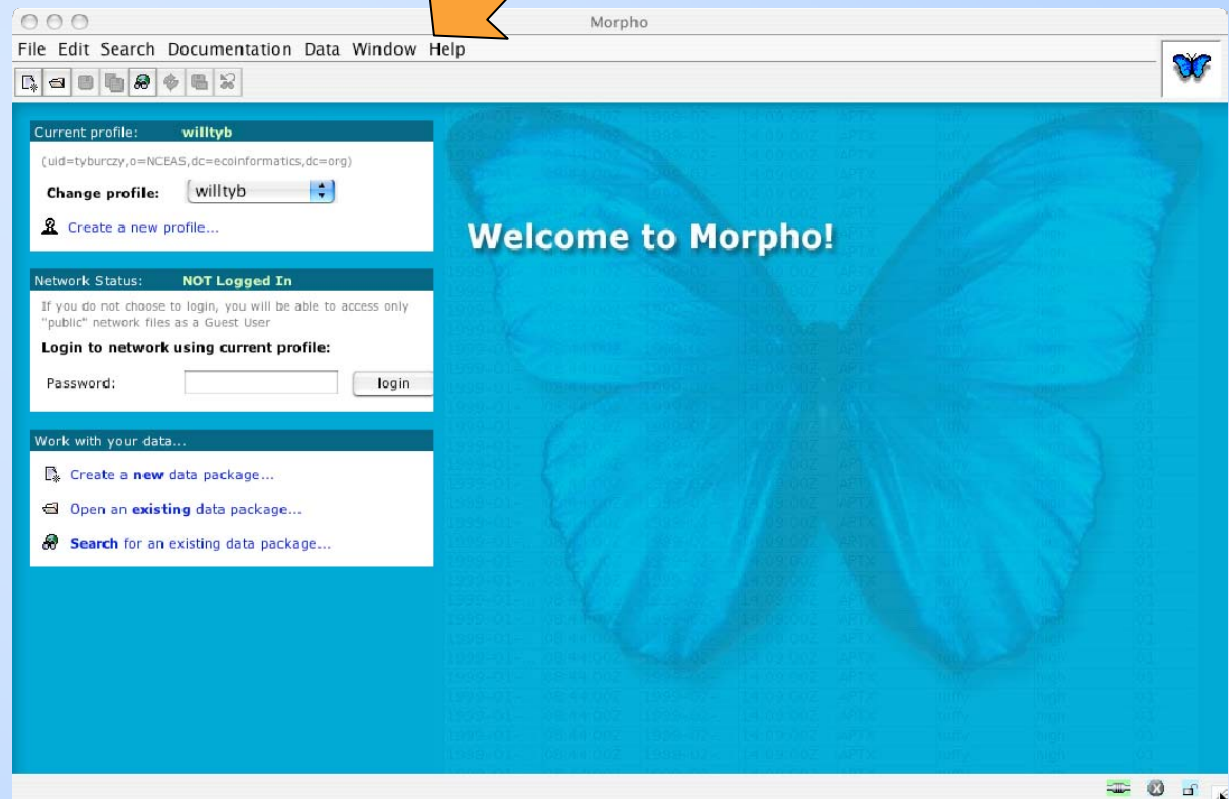
Skip Login



# The main window



- All controls accessible via the menu bar
- Common tasks also in graphics toolbar
- Center window provides access to main functions
- Butterfly icon indicates that program is processing

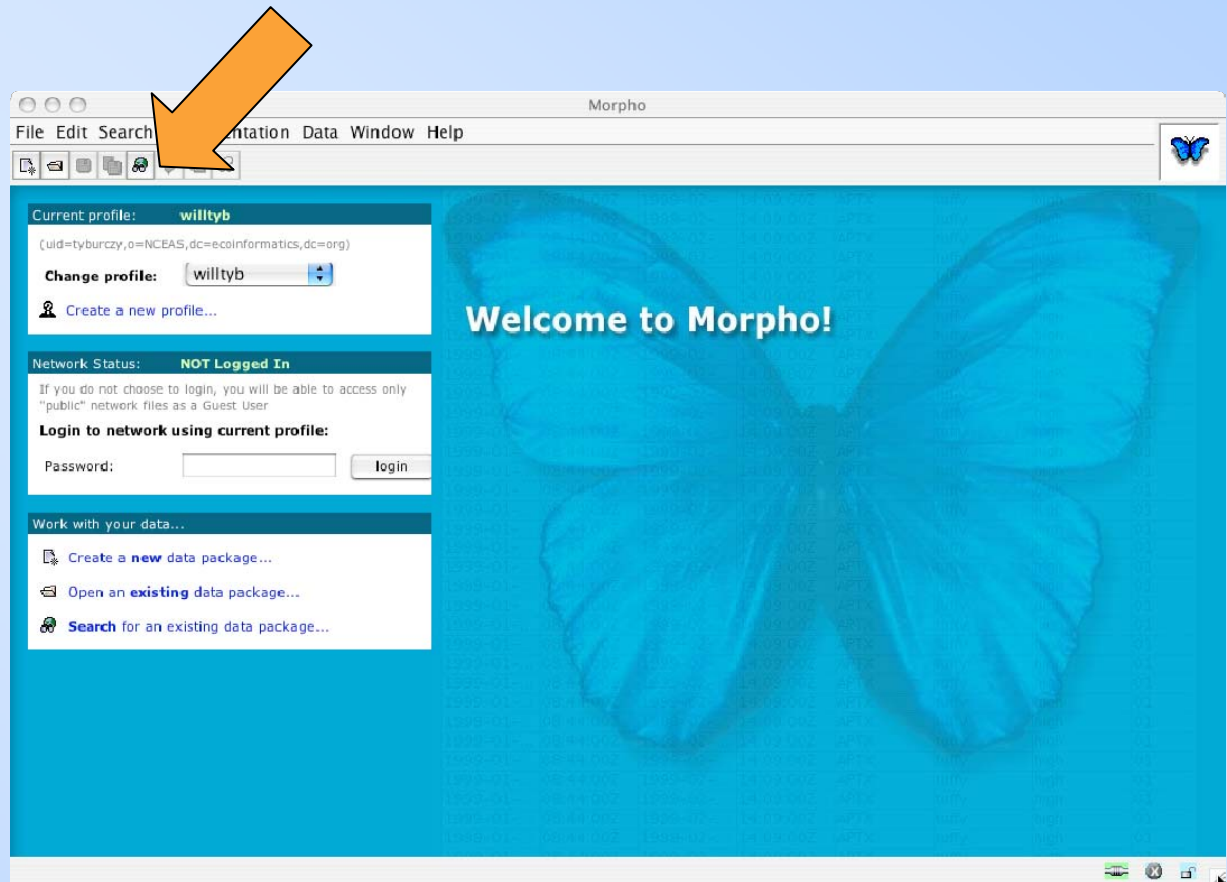




# The main window



- All controls accessible via the menu bar
- **Common tasks also in graphics toolbar**
- Center window provides access to main functions
- Butterfly icon indicates that program is processing

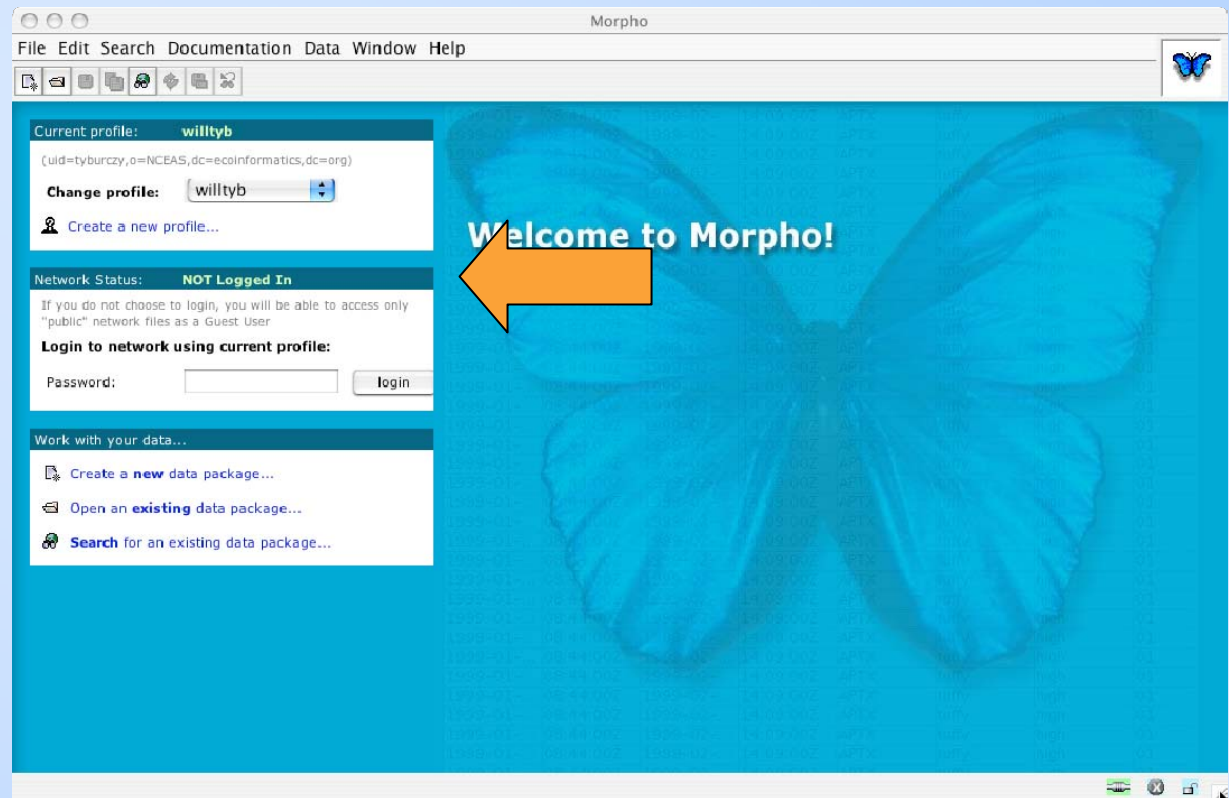




# The main window



- All controls accessible via the menu bar
- Common tasks also in graphics toolbar
- Center window provides access to main functions
- Butterfly icon indicates that program is processing



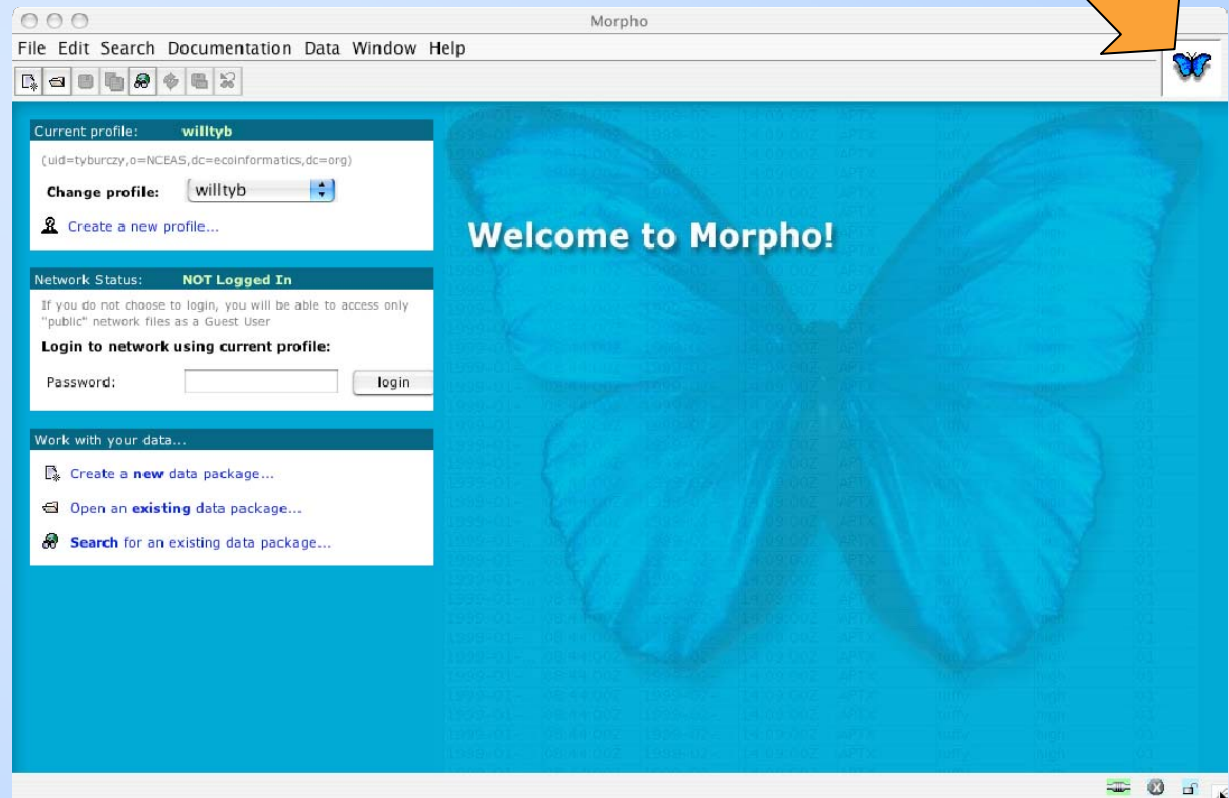




# The main window



- All controls accessible via the menu bar
- Common tasks also in graphics toolbar
- Center window provides access to main functions
- Butterfly icon indicates that program is processing

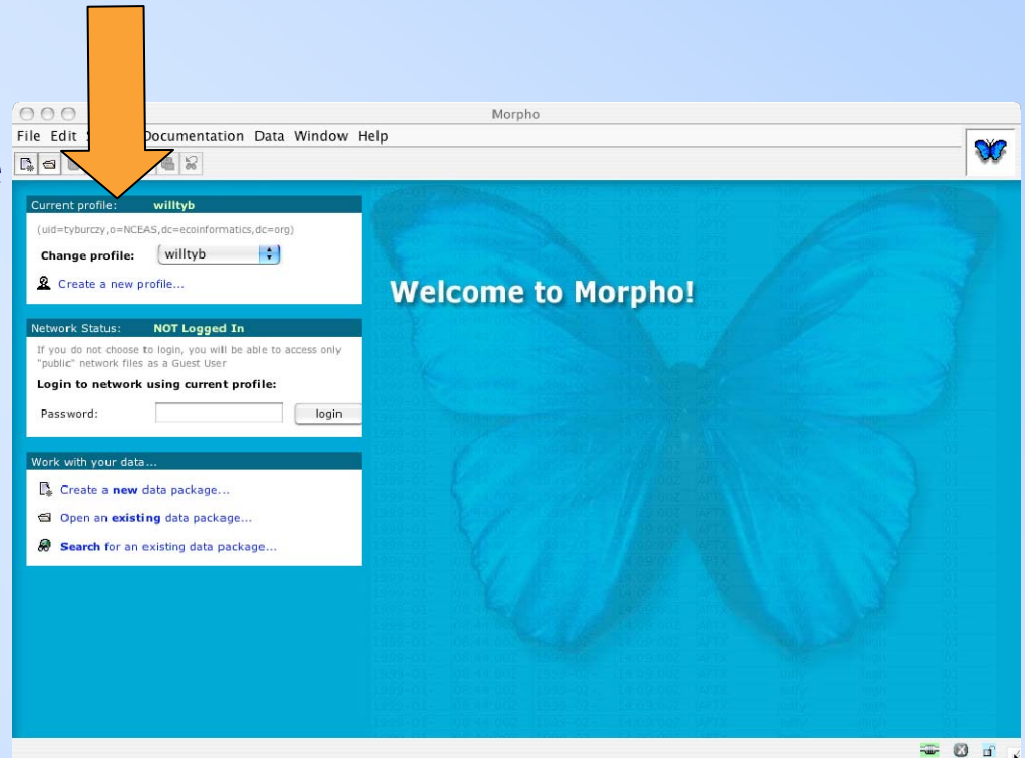




# Profiles in Morpho



- Allows multiple users on the same machine to keep their data separate
  - Profiles are NOT password protected on the local machine
- A profile generally corresponds to an associated KNB account
- Can also be useful to separate work done for different projects/organizations



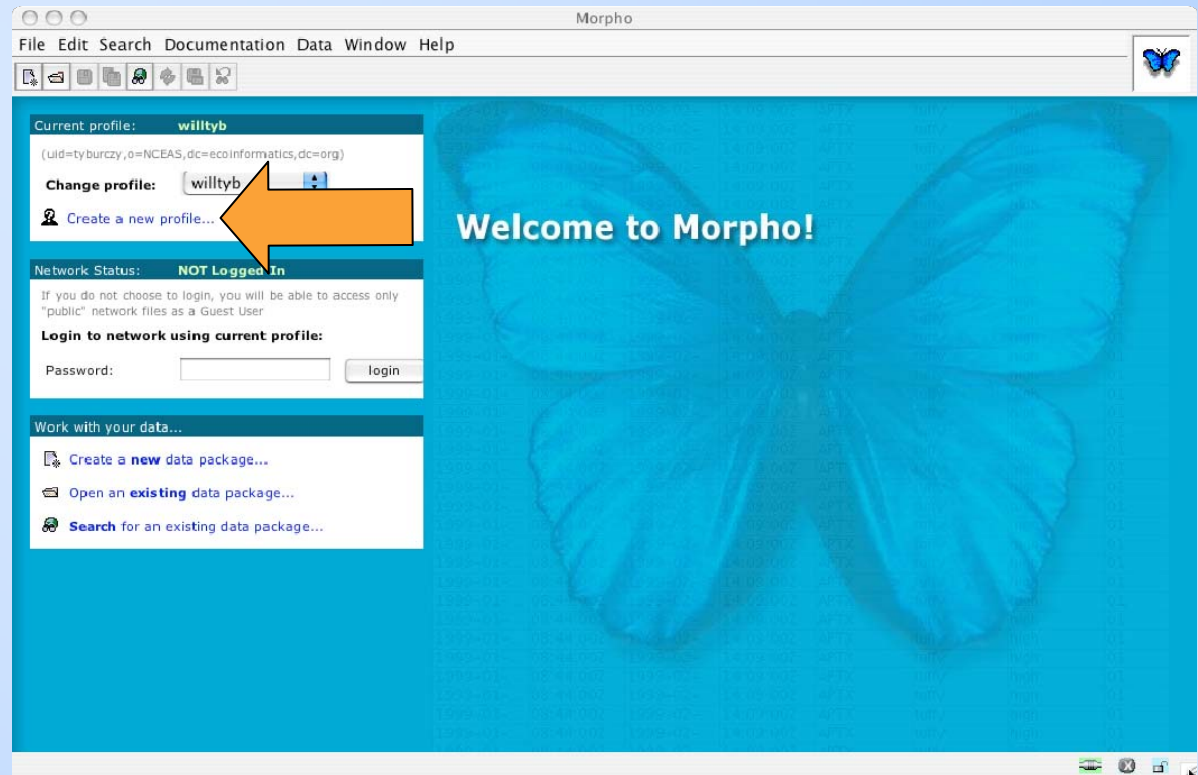
Register for a KNB account at  
<http://knb.ecoinformatics.org>



# Creating a profile



- Select  
“Create a  
new profile...”  
from the main  
window



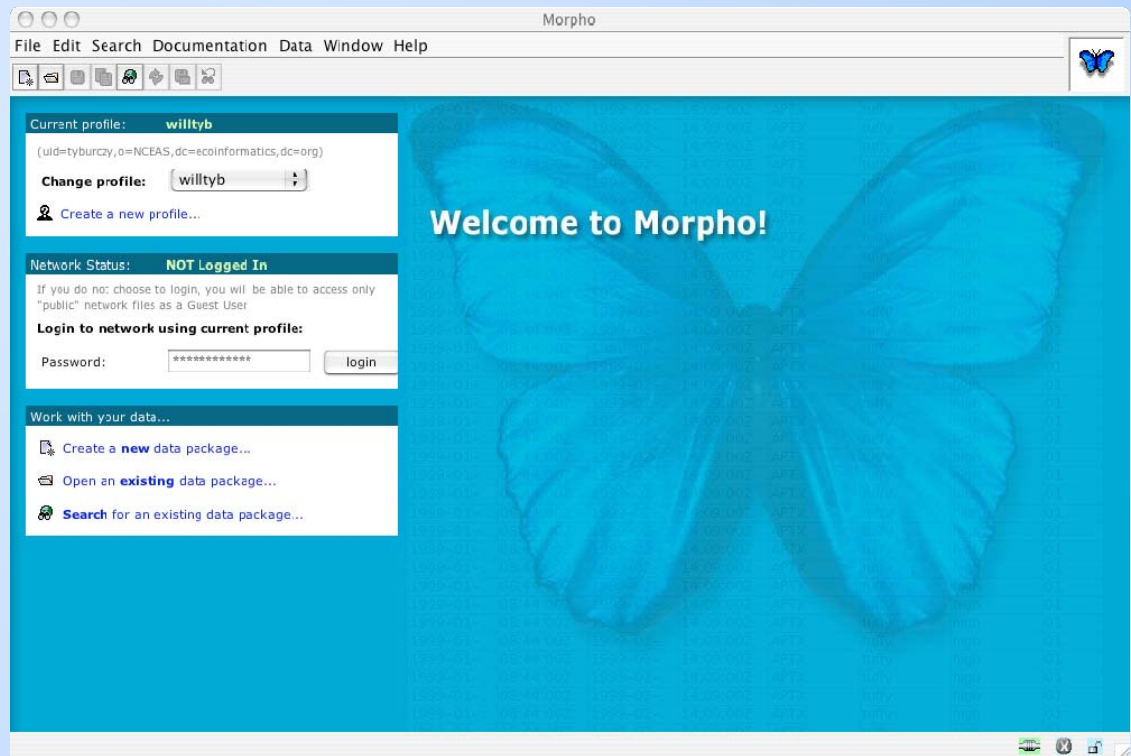




# Logging in



- Required to save or edit data packages on the network
- Allows viewing of data packages that may not be publicly readable
- Select your profile from the drop-down box
- Enter the password for your account
- Hit "Login"

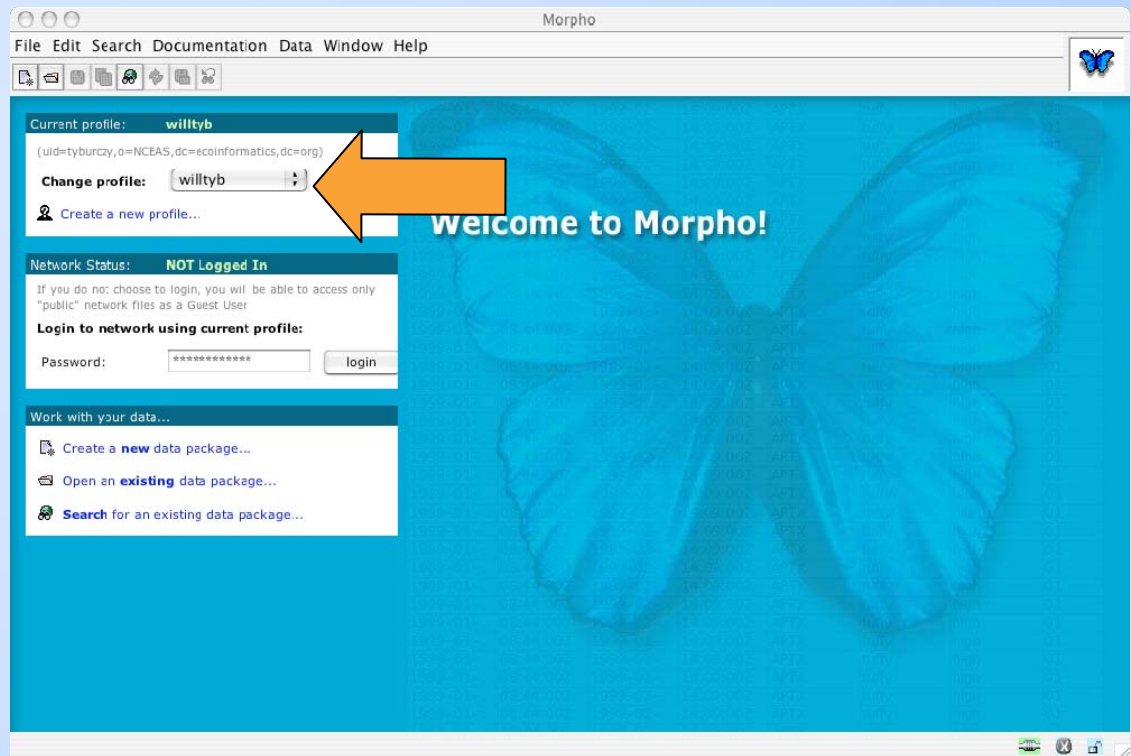




# Logging in



- Required to save or edit data packages on the network
- Allows viewing of data packages that may not be publicly readable
- **Select your profile from the drop-down box**
- Enter the password for your account
- Hit "Login"

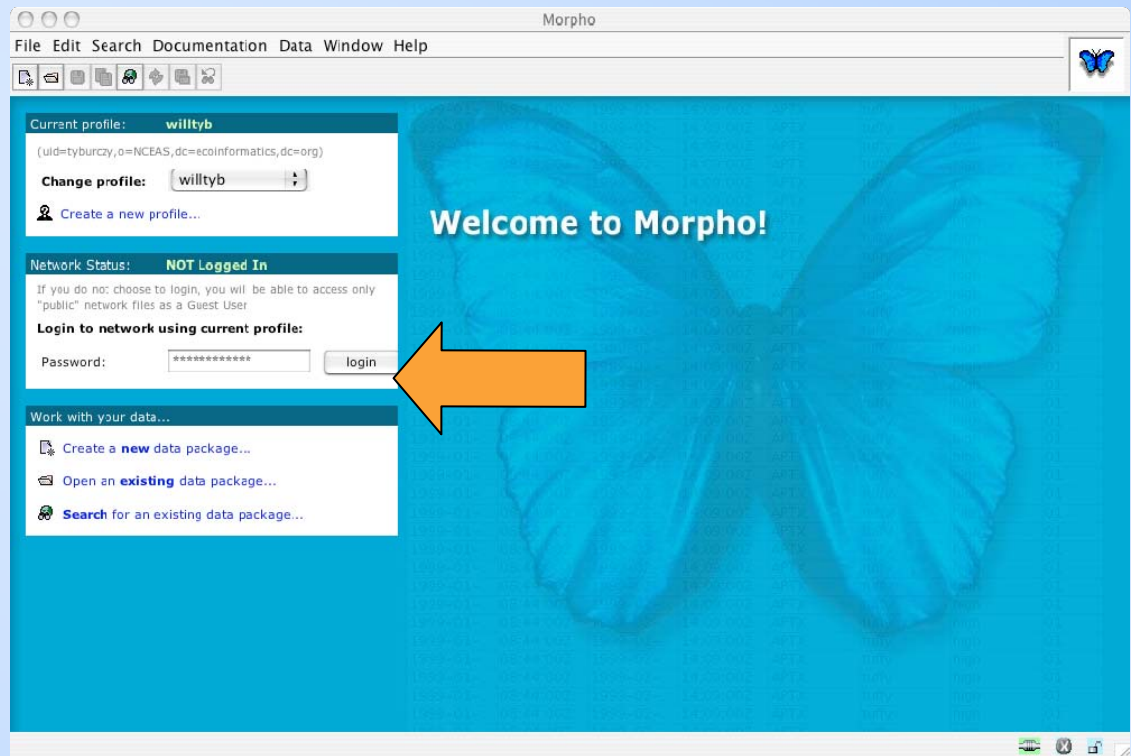




# Logging in



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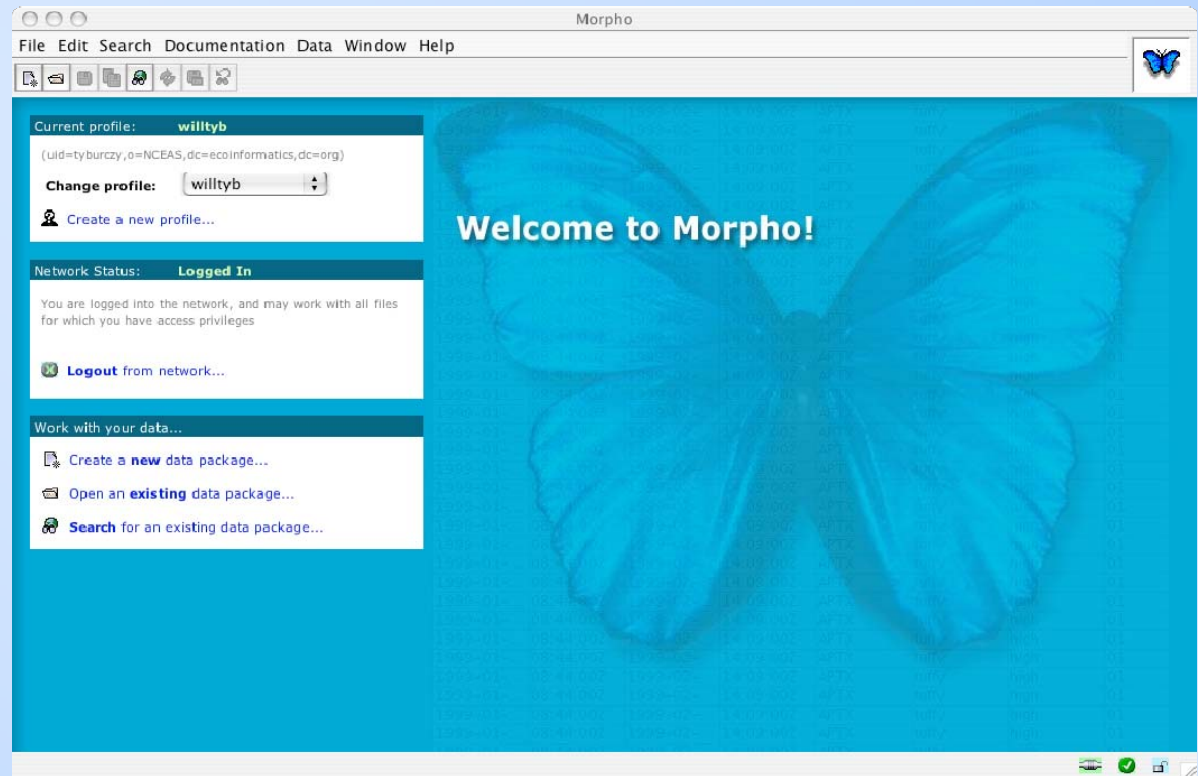




# Logging in



- You can see your network status in two places
  - The main window
  - The login status icon on the lower right



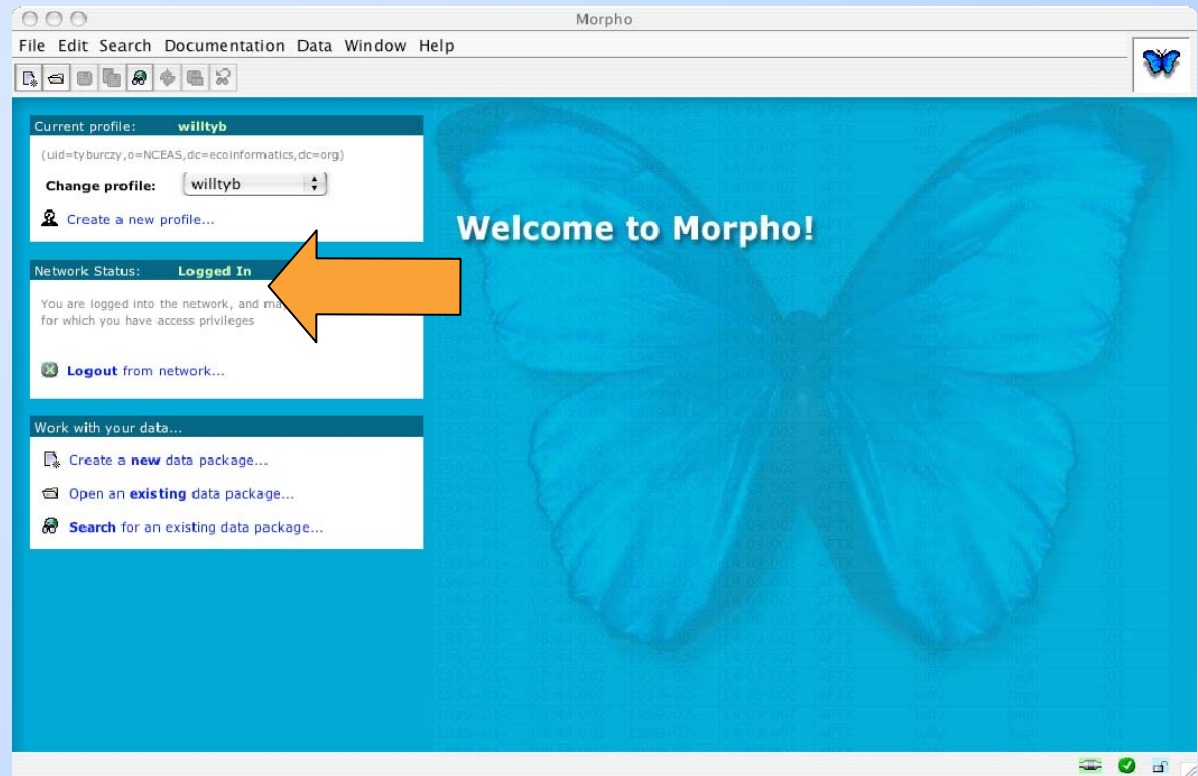




# Logging in



- You can see your network status in two places
  - The main window
  - The login status icon on the lower right

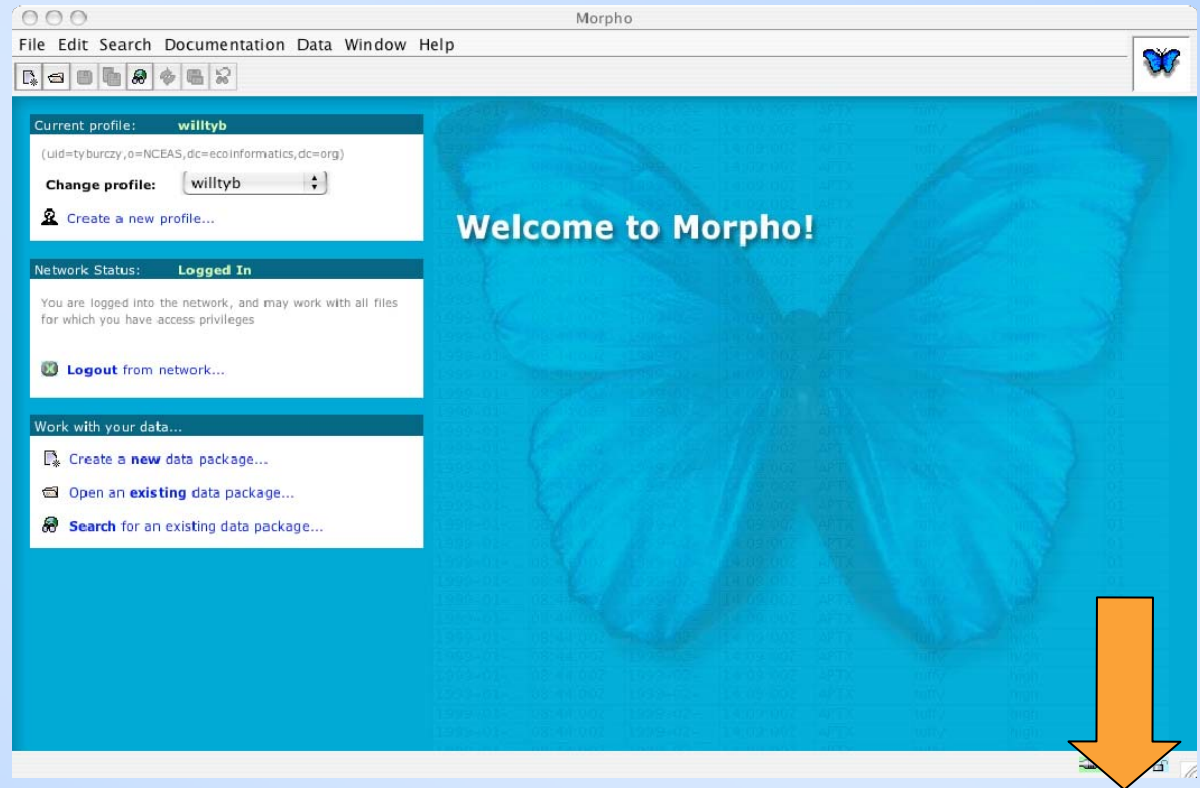




# Logging in



- You can see your network status in two places
  - The main window
  - The login status icon on the lower right

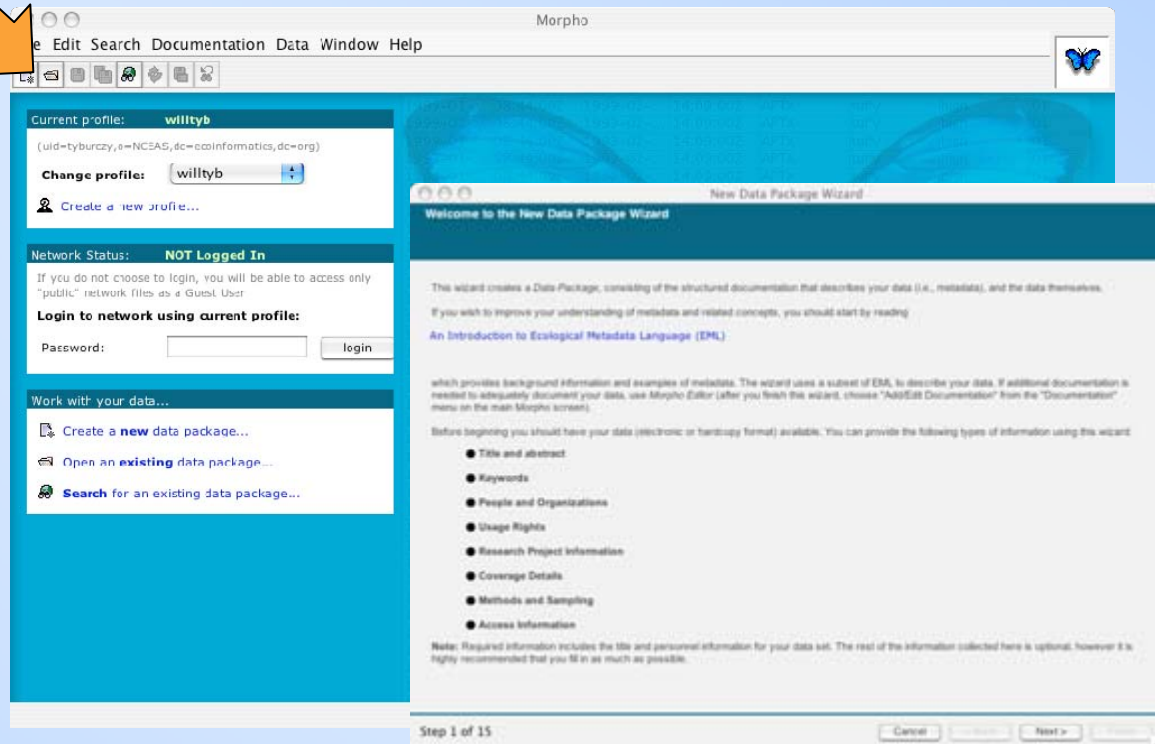
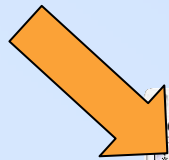




# Creating a data package: The Data Package Wizard



- Step-by-step interface for creating valid EML documents
- Required elements are listed in **RED**
- After creating documents, the interface for the various sections is reachable via the "Documentation" menu

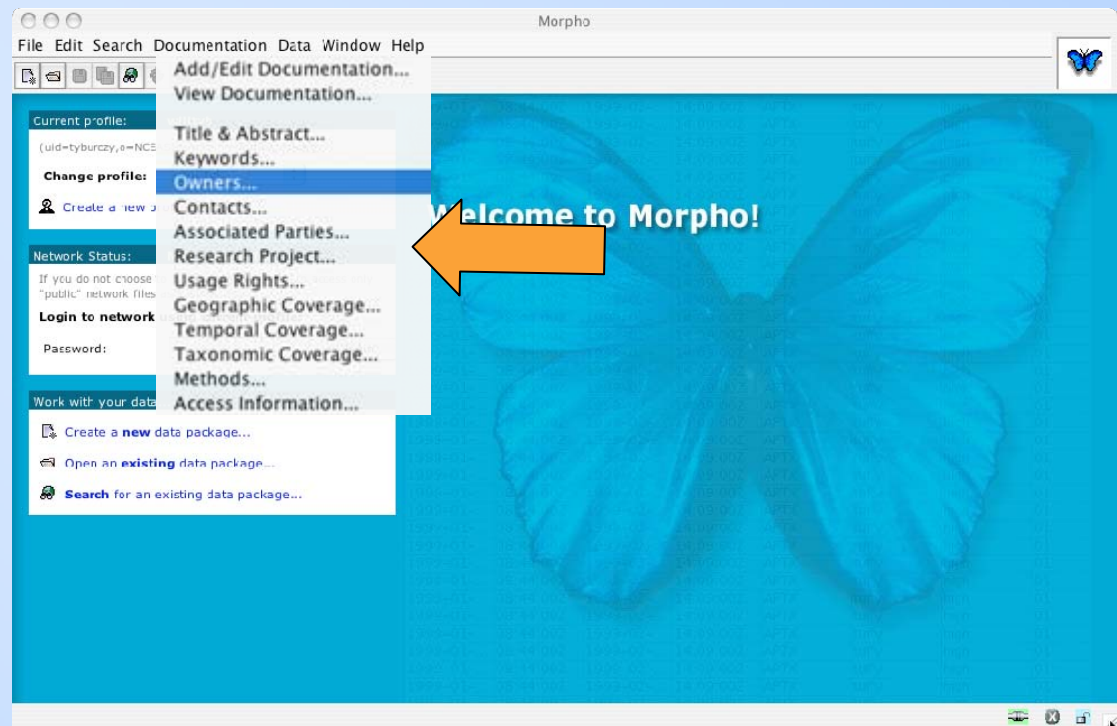




# Creating a data package: The Data Package Wizard



- Step-by-step interface for creating valid EML documents
- Required elements are listed in **RED**
- After creating documents, the interface for the various sections is reachable via the “Documentation” menu



There are 12 steps, similar to the sections of the web registry form





# Editing Data Packages: Title and Abstract



- Enter a descriptive title
- Briefly describe the content and purpose of the data in the abstract

**New Data Package Wizard**

**Title and Abstract**

**Enter the title of the data package.** The title field provides a description of the data that is long enough to differentiate it from other similar data, e.g. Vernal Pool Amphibian Density Data, Isla Vista, CA USA, 1990.

**Title:**

**Enter an abstract that describes the data package.** This abstract is a paragraph or more that describes the particular data that are being documented. You may want to describe the objectives, key aspects, design or methods of the study.

**Abstract:**

Step 2 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Title and Abstract



- Enter a descriptive title
- Briefly describe the content and purpose of the data in the abstract

New Data Package Wizard

**Title and Abstract**

**Enter the title of the data package.** The title field provides a description of the data that is long enough to differentiate it from other similar data. e.g. Vernal Pool Amphibian Density Data, Isla Vista, CA USA, 1990-1996

**Title:**

**Enter an abstract that describes the data package.** This abstract is a paragraph or more that describes the particular data that are being documented. You may want to describe the objectives, key aspects, design of the study.

**Abstract:**

Step 2 of 15



# Editing Data Packages: Keywords



- Hit “Add” to enter more keywords
- To edit or delete existing keywords, select them and hit the appropriate button

**New Data Package Wizard**

**Keywords**

**Enter the keywords.** A data package may have multiple keywords associated with it to enable easy searching and categorization. In addition, one or more keywords may be associated with a "keyword thesaurus", which allows the association of a data package with an authoritative definition. Thesauri may also be used for internal categorization.

Keywords	Thesaurus
----------	-----------

Buttons: Add, Edit, Delete, Move Up, Move Down

Step 3 of 15

Buttons: Cancel, < Back, Next >, Finish



# Editing Data Packages: Keywords



- Hit "Add" to enter more keywords
- To edit or delete existing keywords, select them and hit the appropriate button

New Data Package Wizard

### Keywords

**Enter the keywords.** A data package may have multiple keywords associated with it to enable easy searching and categorization. In addition, one or more keywords may be associated with a "keyword thesaurus", which allows the association of a data package with an authoritative definition. Thesauri may also be used for internal categorization.

Keywords	Thesaurus
Sapelo Island, Georgia, USA	
GCE, LTER, Primary Production, Batis maritima, Borr...	

Buttons: Add, Move Up, Move Down

Step 3 of 15

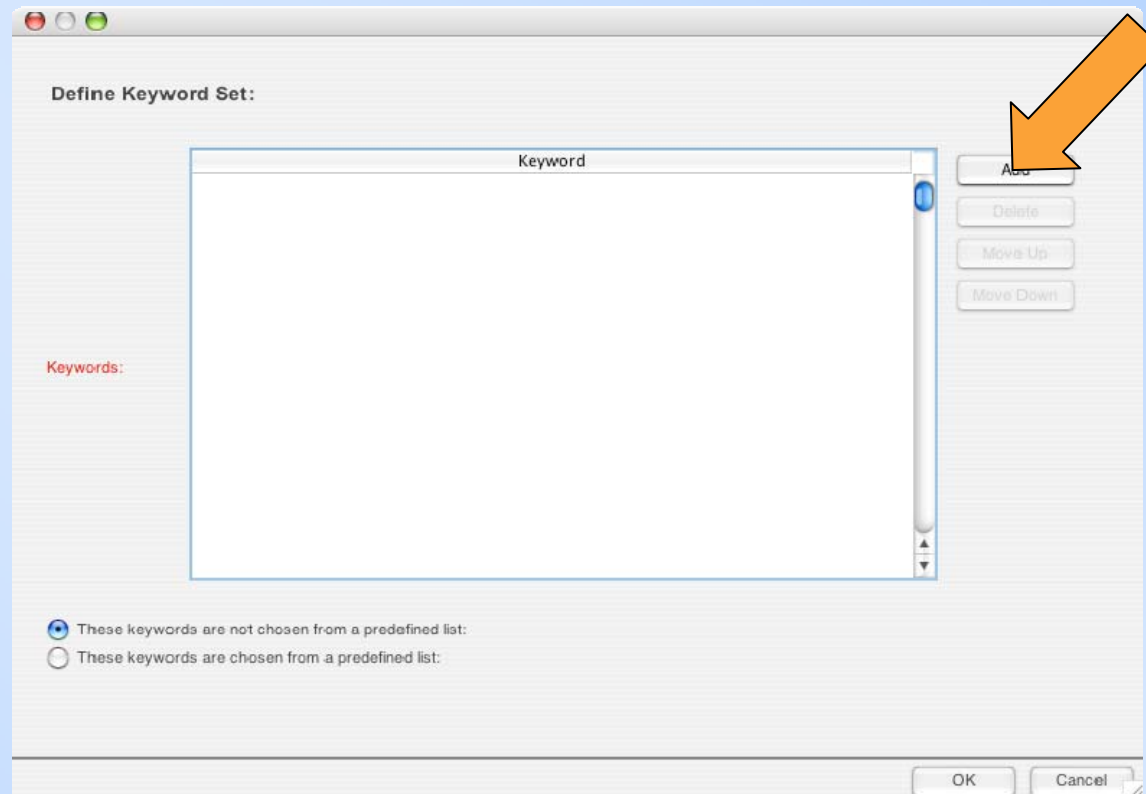
Cancel < Back Next > Finish



# Editing Data Packages: Keywords



- To add a keyword, hit "Add"
- Enter keyword in designated space





# Editing Data Packages: Keywords



- To add a keyword, hit "Add"
- Enter keyword in designated space

Define Keyword Set:

Keyword
Sanelo Island

Keywords:

☒ These keywords are not chosen from a predefined list:  
☐ These keywords are chosen from a predefined list:

Buttons: Add, Delete, Move Up, Move Down, OK, Cancel



# Editing Data Packages: Keywords



- To designate a source for the keywords (GCMD, for instance), select the appropriate radio button at the bottom and type in the name of the source

Define Keyword Set:

Keyword

Sanelo Island

Keywords:

☐ These keywords are not chosen from a predefined list.

☒ These keywords are chosen from a predefined list:

Thesaurus name:

OK Cancel



# Editing Data Packages: Data Set Owner



- To add an owner, hit “Add”
- To edit or delete an owner, select the listing, then hit the appropriate button

New Data Package Wizard

People or Organizations Associated With This Data Package

Owners

Enter information about the Owners: This is information about the persons or organizations certified as data owners (e.g. the principal investigator(s) the project). The list of data owners should include all people and organizations who should be cited for the data. Select Add to add an owner.

One or more Owners must be defined:

Party	Role	Address
-------	------	---------

Add  
Edit  
Delete  
Move Up  
Move Down

Step 5 of 15

Cancel < Back Next > Finish





# Editing Data Packages: Data Set Owner



- To add an owner, hit "Add"
- To edit or delete an owner, select the listing, then hit the appropriate button

New Data Package Wizard

People or Organizations Associated With This Data Package

Owners

Enter information about the Owners: This is information about the persons or organizations certified as data owners (e.g. the principal investigator(s) of the project). The list of data owners should include all people and organizations who should be cited for the data. Select Add to add an owner.


One or more Owners must be defined:

Party	Role	Address
-------	------	---------

Buttons: Add, Edit, Delete, Move Up, Move Down

Step 5 of 15

Cancel < Back Next > Finish





# Editing Data Packages: Data Set Owner



- Enter in the information for the owner, then hit "OK"

**Owner Details**

You can pick from one of the earlier entries that you have made.

Salutation:

First Name:

One of the three required { Last Name:

Organization:

Position Name:

Address 1:

Address 2:

City:  State:

Postal Code:  Country:

Phone:

Fax:

Email:  Online URL:

OK Cancel



# Editing Data Packages: Contact Person



- Works similarly to data set owners
- To add a contact, hit "Add"

New Data Package Wizard

People or Organizations Associated With This Data Package

Contacts

Enter information about contacts. This is information about the people or organizations who would be contacted with questions about the use or interpretation of a data package.


One or more Contacts must be defined:

Party	Role	Address
-------	------	---------

Buttons: Add, Edit, Delete, Move Up, Move Down

Step 6 of 15

Cancel < Back Next > Finish





# Editing Data Packages: Contact Person



- Can select a previous entry in the data package to specify the same person
- Can also specify a person from another data package

**Contact Details**

You can pick from one of the earlier entries that you have made.

Select from a different data package  
Georgia Coastal Ecosystems LTER Project

Salutation:

First Name:

Last Name:

Organization:

Position Name:

Address 1:

Address 2:

City:  State:

Postal Code:  Country:

Phone:  Fax:

Email:  Online URL:

One of the three required {

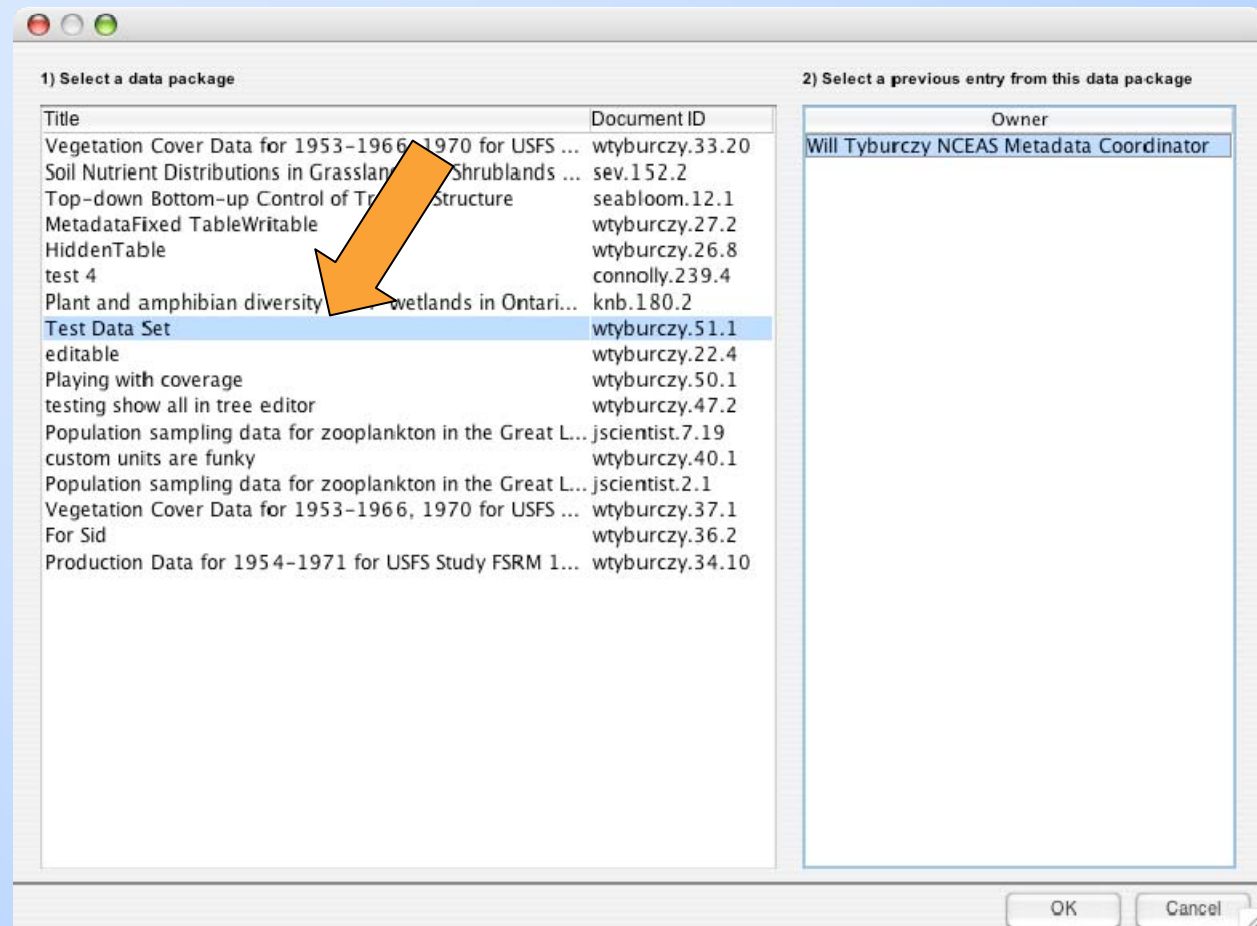
OK Cancel



# Editing Data Packages: Contact Person



- To select an entry from another data package:
  - select the package on the left
  - then the contact on the right

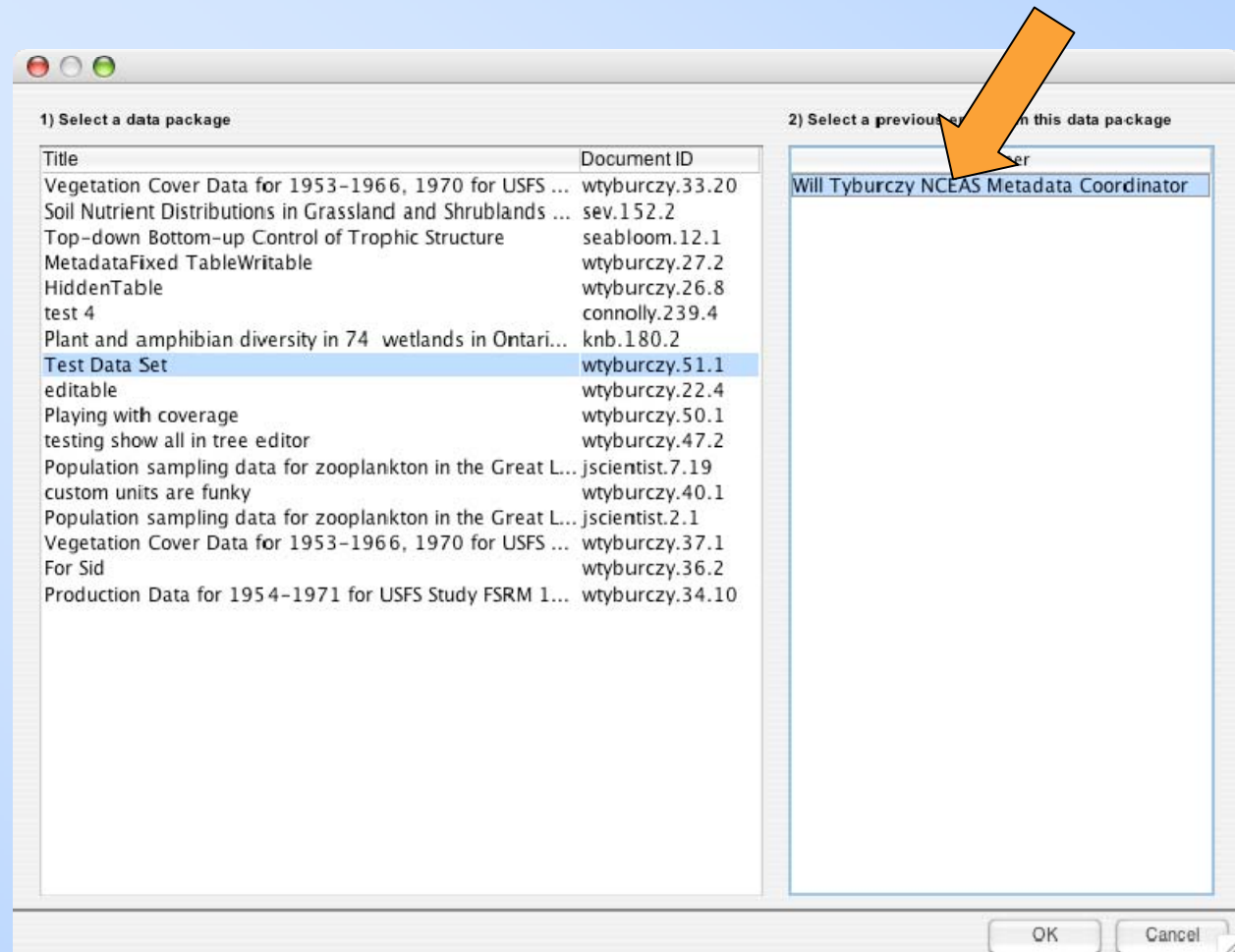




# Editing Data Packages: Contact Person



- To select an entry from another data package:
  - select the package on the left
  - then the contact on the right





# Editing Data Packages: Associated Parties



- Works similarly to entering owners and contacts

New Data Package Wizard

### People or Organizations Associated With This Data Package

Associated Parties

Enter associated parties information. These are persons or organizations functionally associated with the dataset. Enter the nature of the relationship in the role field. For example, the person who maintains the database is an associated party with the role of 'custodian'.

Party	Role	Address
-------	------	---------

**Add**  
**Edit**  
**Delete**  
**Move Up**  
**Move Down**

Step 7 of 15

**Cancel** **< Back** **Next >** **Finish**





# Editing Data Packages: Associated Parties



- Works similarly to entering owners and contacts
- Can enter "Role" by hand or select from the drop down list

**Associated Party Details**

You can pick from one of the earlier entries that you have made.

Role:

Salutation:

First Name:

Last Name:

Organization:

Position Name:

Address 1:

Address 2:

City:

Postal Code:

Phone:

Fmail:

State:

Country:

Fax:

Online URI:

OK Cancel

One of the three required {

Originator  
Content Provider  
Principal Investigator  
Editor  
Publisher  
Processor  
Custodian/Steward





# Editing Data Packages: Research Project



- Check the box if the dataset is part of a larger research project
- This is a subjective call, use when you feel it is appropriate

New Data Package Wizard

**Research Project Information**

Is your project part of a larger umbrella research project? Data may be collected as part of a large research program with many sub-projects or they may be associated with a single, independent investigation. For example, a large NSF grant may provide funds for several primary investigators to collect data at various locations.

☐ This project is part of a larger umbrella research project.

Step 8 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Research Project



- Enter the information about the research project

New Data Package Wizard

### Research Project Information

is your project part of a larger umbrella research project? Data may be collected as part of a large research program with many sub-projects or they may be associated with a single, independent investigation. For example, a large NSF grant may provide funds for several primary investigators to collect data at various locations.

☒ This project is part of a larger umbrella research project.

Enter Project Information—

Enter the title of the project.

Title

Enter the funding sources that support this project. This may include agency names and grant or contract numbers.

Funding Source

Enter the personnel information. The full name of the people or organizations responsible for the project.

One or more Personnel must be defined:

Party	Role	Address

Add  
Edit  
Delete  
Move Up  
Move Down

Step 8 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Usage Rights



- Describe usage restrictions for the dataset, if any

New Data Package Wizard

### Usage Rights

Enter a paragraph that describes the intended usage rights of the data package. Specifically, include any restrictions (scientific, technical, ethical) to sharing your data within the public scientific domain.

Usage Rights:

Step 9 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Spatial Coverage



- To add an area of spatial coverage to the data, hit "Add"

New Data Package Wizard

Geographic Coverage

Describe the geographic region covered by your data. Use the following screen to provide a complete description or assign one of the existing descriptions.

Description	Geographic Coverage
-------------	---------------------

Add  
Edit  
Delete  
Move Up  
Move Down

Step 10 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Spatial Coverage



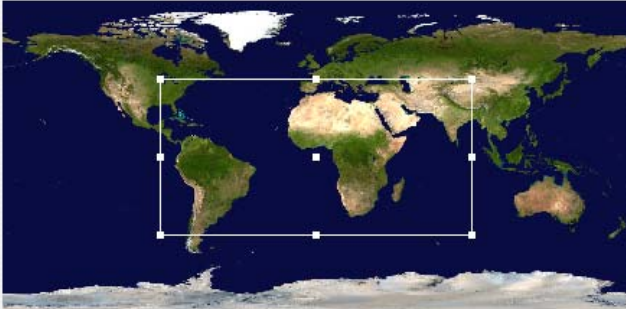
- Enter a description for the area
- Many ways to select the area
  - Enter coordinates manually
  - Select from list
  - Box Tool
  - Point Tool

Enter a description of the geographic coverage. Enter a general description of the geographic area in which the data were collected. This can be a place name (e.g., Santa Barbara) or a fuller description.

Description:

Set the geographic coordinates which bound the coverage: Latitude and longitude values are used to create a 'bounding box' containing the region of interest. Drag or click on the map and then edit the text boxes if necessary. [Default entries are in fractional degrees. To enter in degrees/minutes/seconds, simply type a space between the degrees, minutes, and seconds values]

Bounding Box:



45.0 N  
90.0 W 90.0 E  
45.0 S

Zoom In Zoom Out

☒ Box Tool ☐ Point Tool

Named Regions:

- Black Rock Forest
- Blackwater Ecological Preserve
- Blakely Island Field Station
- Blandy Experimental Farm
- Blodgett Forest Research Station
- Bodega Bay Marine Laboratory and Reserve
- Bodega Marine Reserve UCNR
- Bonanza Creek LTER (IBNZ)
- Bowdoin Scientific Station
- Bowdoin Marine Reserve UCNR

Add Click to add current selection to list.

Delete Click to remove selected region from list.

Sort Click to sort the list of locations.

OK Cancel



# Editing Data Packages: Spatial Coverage



- Enter a description for the area
- Many ways to select the area
  - Enter coordinates manually
  - Select from list
  - Box Tool
  - Point Tool

Enter a description of the geographic coverage. Enter a general description of the geographic area in which the data were collected. This can be a simple place name (e.g., Santa Barbara) or a fuller description.

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Bouncing Box:

45.0 N  
90.0 W 90.0 E  
45.0 S

Zoom In Zoom Out

☒ Box Tool ☐ Point Tool

Black Rock Forest  
Blackwater Ecological Preserve  
Blakely Island Field Station  
Blandy Experimental Farm  
Blodgett Forest Research Station  
Bodega Bay Marine Laboratory and Reserve  
Bodega Marine Reserve UCNR  
Bonanza Creek LTER (BNZ)  
Bowdoin Scientific Station  
Boykin Reserve UCNR

Add Click to add current selection to list.  
Delete Click to remove selected region from list.  
Sort Click to sort the list of locations.

OK Cancel





# Editing Data Packages: Spatial Coverage



- Enter a description for the area
- Many ways to select the area
  - Enter coordinates manually
  - **Select from list**
  - Box Tool
  - Point Tool

The screenshot shows a web-based interface for editing spatial coverage data. At the top, there's a text input field for a description, with a label 'Description:'. Below this is a section for setting geographic coordinates, with a label 'Bouncing Box:'. It includes a world map with a white bounding box over the Pacific Ocean. To the right of the map are input fields for latitude (45.0 N, 45.0 S) and longitude (90.0 W, 90.0 E), along with 'Zoom In' and 'Zoom Out' buttons. Below the map is a list of 'Named Regions' with an orange arrow pointing to it. The list includes: Black Rock Forest, Blackwater Ecological Preserve, Blakely Island Field Station, Blandy Experimental Farm, Blodgett Forest Research Station, Bodega Bay Marine Laboratory, Bodega Marine Reserve UCNRS, Bonanza Creek LTER (IBNZ), Bowdoin Scientific Station, and Bowdoin Marine Reserve UCNRS. To the right of the list are 'Add', 'Delete', and 'Sort' buttons. At the bottom right are 'OK' and 'Cancel' buttons.

Enter a description of the geographic coverage. Enter a general description of the geographic area in which the data were collected. This can be a simple place name (e.g., Santa Barbara) or a fuller description.

Description:

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Bouncing Box:

45.0 N  
90.0 W 90.0 E  
45.0 S

Zoom In Zoom Out

☒ Box Tool ☐ Point Tool

Named Regions:

- Black Rock Forest
- Blackwater Ecological Preserve
- Blakely Island Field Station
- Blandy Experimental Farm
- Blodgett Forest Research Station
- Bodega Bay Marine Laboratory
- Bodega Marine Reserve UCNRS
- Bonanza Creek LTER (IBNZ)
- Bowdoin Scientific Station
- Bowdoin Marine Reserve UCNRS

Add Click to add current selection to list.

Delete Click to remove selected region from list.

Sort Click to sort the list of locations.

OK Cancel



# Editing Data Packages: Spatial Coverage



- Enter a description for the area
- Many ways to select the area
  - Enter coordinates manually
  - Select from list
  - **Box Tool**
  - Point Tool

Enter a description of the geographic coverage. Enter a general description of the geographic area in which the data were collected. This can be a simple place name (e.g., Santa Barbara) or a fuller description.

Description:

Set the geographic coordinates which bound the coverage: Latitude and longitude values are used to create a 'bounding box' containing the region of interest. Drag or click on the map and then edit the text boxes if necessary. [Result entries are in fractional degrees. To enter in degrees/minutes/seconds, simply type a space between the degrees, minutes, and seconds values]

Bounding Box:

45.0 N  
90.0 W 90.0 E  
45.0 S

Zoom In Zoom Out

☒ Box Tool ☐ Point Tool

Named Regions:

- Black Rock Forest
- Blackwater Ecological Preserve
- Blakely Island Field Station
- Blandy Experimental Farm
- Blodgett Forest Research Station
- Bodega Bay Marine Laboratory and Reserve
- Bodega Marine Reserve UCNRS
- Bonanza Creek LTER (IBNZ)
- Bowdoin Scientific Station
- Bowdoin Preserve UCNRS

Add Click to add current selection to list.

Delete Click to remove selected region from list.

Sort Click to sort the list of locations.

OK Cancel



# Editing Data Packages: Spatial Coverage



- Enter a description for the area
- Many ways to select the area
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  - Point Tool

Enter a description of the geographic coverage. Enter a general description of the geographic area in which the data were collected. This can be a simple place name (e.g., Santa Barbara) or a fuller description.

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Bounding Box:

0.0 N  
0.0 E 0.0 E  
0.0 N

Zoom In Zoom Out

☐ Box Tool ☒ Point Tool

Named Regions:

- Black Rock Forest
- Blackwater Ecological Preserve
- Blakely Island Field Station
- Blandy Experimental Farm
- Blodgett Forest Research Station
- Bodega Bay Marine Laboratory and Reserve
- Bodega Marine Reserve UCNRS
- Bonanza Creek LTER (BNZ)
- Bowdoin Scientific Station
- Bowdoin Marine Reserve UCNRS

Add Click to add current selection to list.

Delete Click to remove selected region from list.

Sort Click to sort the list of locations.

OK Cancel



# Editing Data Packages: Temporal Coverage



- To add a new temporal coverage, hit "Add"

The screenshot shows a window titled "New Data Package Wizard" with a sub-header "Temporal Coverage". Below the header, a text box contains the instruction: "Enter information about temporal coverage. Temporal coverages can be specified as a single point in time, multiple points in time, or a range thereof." Below this is a large, empty rectangular area labeled "Time Coverages". To the right of this area is a vertical stack of buttons: "Add", "Edit", "Delete", "Move Up", and "Move Down". An orange arrow points to the "Add" button. At the bottom of the window, it says "Step 11 of 15" and has navigation buttons: "Cancel", "< Back", "Next >", and "Finish".



# Editing Data Packages: Temporal Coverage



- Enter in the date and hit “OK”
- Alternatively, you can enter a range of coverage

Define Temporal Coverage:

Choose date type:

☒ Single Point in Time  
☐ Range of Date/Time

Enter date:

☐ Enter Year Only  
☐ Enter Month and Year  
☒ Enter Day, Month and Year

October 15, 2005

October 2005

Sun Mon Tue Wed Thu Fri Sat

1

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31

OK Cancel



# Editing Data Packages: Temporal Coverage



- Enter in the date and hit "OK"
- **Alternatively, you can enter a range of coverage**

Define Temporal Coverage:

Choose date type:

☐ Single Point in Time

☒ Range of Date/Time

Enter starting date:

☐ Enter Year Only

☐ Enter Month and Year

☒ Enter Day, Month and Year

October 15, 2005

October 2005

Sun Mon Tue Wed Thu Fri Sat

1

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31

Enter ending date:

☐ Enter Year Only

☐ Enter Month and Year

☒ Enter Day, Month and Year

October 15, 2005

October 2005

Sun Mon Tue Wed Thu Fri Sat

1

2 3 4 5 6 7 8

9 10 11 12 13 14 15

16 17 18 19 20 21 22

23 24 25 26 27 28 29

30 31

OK Cancel





# Editing Data Packages: Taxonomic Coverage



- To enter additional taxonomic information, hit "Add" beside the top frame
- To enter information above genus level, select the appropriate entry and hit "Edit"

New Data Package Wizard

### Taxonomic Coverage

**Enter information about the Taxonomic Coverage.** By default, you may enter information on Genus and Species. If you would like to enter information at another classification rank or would like to change the default classification rank, click the edit button. Note that the field 'Higher Level Taxa' is dynamically generated from your entries and is not manually editable.

If your information about the taxonomic coverage is extensive (e.g., an extensive list of species), you can import this information in the form of a table. See the Frequently Asked Questions section of the Morpho User Guide to find out how to do this.


Higher Level Taxa	Rank	Name	Rank	Name	Common Name(s)
	Genus		Species		

**Classification System** If the list of taxa belong to one or more different classification systems, list the citations for those systems.

Citation Title	Creator	Citation Type
----------------	---------	---------------

Step 12 of 15

Cancel < Back Next > Finish





# Editing Data Packages: Taxonomic Coverage



- To enter additional taxonomic information, hit "Add" beside the top frame
- To enter information above genus level, select the appropriate entry and hit "Edit"

New Data Package Wizard

### Taxonomic Coverage

**Enter information about the Taxonomic Coverage.** By default, you may enter information on Genus and Species. If you would like to enter information at another classification rank or would like to change the default classification rank, click the edit button. Note that the field 'Higher Level Taxa' is dynamically generated from your entries and is not manually editable.

If your information about the taxonomic coverage is extensive (e.g., an extensive list of species), you can import this information in the form of a table. See the Frequently Asked Questions section of the Morphe User Guide to find out how to do this.

Higher Level Taxa	Rank	Name	Rank	Name	Common Name(s)
	Genus		Species		

Buttons: Add, Edit, Delete

**Classification System** If the list of taxa belong to one or more different classification systems, list the citations for those systems.

Citation Title	Creator	Citation Type
----------------	---------	---------------

Buttons: Add, Edit, Delete

Step 12 of 15

Buttons: Cancel, < Back, Next >, Finish



# Editing Data Packages: Taxonomic Coverage



- Enter in the names and common names for each rank
- Ranks can be added, deleted, or modified as appropriate

Enter the Taxonomic Hierarchy (in descending order):

Rank	Name	Common Name(s)
Kingdom		
Phylum		
Class		
Order		
Family		
Genus		
Species		

Buttons: Add, Delete, Move Up, Move Down

OK Cancel



# Editing Data Packages: Taxonomic Coverage





- Enter in the names and common names for each rank
- Ranks can be added, deleted, or modified as appropriate

Enter the Taxonomic Hierarchy (in descending order):

Rank	Name	Common Name(s)
Kingdom		
Phylum		
Class		
Order		
Family		
Genus		
Species		

Buttons: Add, Delete, Move Up, Move Down

OK Cancel





# Editing Data Packages: Taxonomic Coverage



- To enter a classification reference (e.g. Lights Manual), hit “Add” under “Classification System”

New Data Package Wizard

### Taxonomic Coverage

Enter information about the Taxonomic Coverage. By default, you may enter information on Genus and Species. If you would like to enter information at another classification rank or would like to change the default classification rank, click the edit button. Note that the field 'Higher Level Taxa' is dynamically generated from your entries and is not manually editable.

If your information about the taxonomic coverage is extensive (e.g., an extensive list of species), you can import this information in the form of a table. See the Frequently Asked Questions section of the Morpho User Guide to find out how to do this.

Higher Level Taxa	Rank	Name	Rank	Name	Common Name(s)
	Genus		Species		

Add  
Edit  
Delete

**Classification System** If the list of taxa belong to one or more different classification systems, list the citations for those systems.

Citation Title	Creator	Citation Type
----------------	---------	---------------

Add  
Edit  
Delete

Step 12 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Taxonomic Coverage



- Fill in the information for the reference

Define the Citation Details:

Title:

Party	Role	Address

Author(s):

Publication Date:

Use the YYYY-MM-DD format - (e.g. 1989-02-24)

Category:

☐ Book  
☐ Article  
☐ Report

Buttons: Add, Edit, Delete, Move Up, Move Down, OK, Cancel





# Editing Data Packages: Methods



- Enter a description for the method of sampling and the extent of the study
- To enter a new step in the methods, hit "Add"

New Data Package Wizard

### Methods and Sampling

Enter method step description. Method steps describe a single step in the implementation of a methodology for an experiment.

Method Step Title	Method Step Description	Instrumentation
-------------------	-------------------------	-----------------

Add  
Edit  
Delete  
Move Up  
Move Down

**Study extent description.** Describe the temporal, spatial and taxonomic extent of the study. This information supplements the coverage information you may have provided in a previous step.

Study Extent

**Sampling description.** Describe the sampling design of the study. For example, you might describe the way in which treatments were assigned to sampling units.

Sampling

Step 13 of 15

Cancel < Back Next > Finish



# Editing Data Packages: Methods



- Enter a description for the method of sampling and the extent of the study
- To enter a new step in the methods, hit "Add"

New Data Package Wizard

### Methods and Sampling

Enter method step description. Method steps describe a single step in the implementation of a methodology for an experiment.

Method Step Title	Method Step Description	Instrumentation
-------------------	-------------------------	-----------------

**Add**  
**Edit**  
**Delete**  
**Move Up**  
**Move Down**

**Study extent description.** Describe the temporal, spatial and taxonomic extent of the study. This information supplements the coverage information you may have provided in a previous step.

Study Extent

**Sampling description.** Describe the sampling design of the study. For example, you might describe the way in which treatments were assigned to sampling units.

Sampling

Step 13 of 15

**Cancel** **< Back** **Next >** **Finish**



# Editing Data Packages: Methods



- Fill in the description of the method

Enter Method Step Information:

Enter title

Title

Enter description

Description:

Enter Instrumentation Details

Instrumentation:

OK Cancel



# Editing Data Packages: Access Rights



- Control who is allowed to view, edit, delete, and change access rights to your data package
- Only apply to copies saved on the network
  - anyone can view and edit data packages saved on the local machine

New Data Package Wizard

### Access Information

Would you like to allow the public to read your data package?

☒ Yes, give read-only access to public.  
☐ No.

Would you like to give special access rights to other people? You can specify access for other members of your team or any other person. Use the table below to add, edit and delete access rights to your data package.

Name	Organization	Email/Description	Permissions
------	--------------	-------------------	-------------

Step 14 of 15



# Editing Data Packages: Access Rights



- Select whether to give read access to the public
- To add an additional access privilege or restriction, hit "Add"

New Data Package Wizard

### Access Information

Would you like to allow the public to read your data package?

☒ Yes. Read-only access to public.

☐ No.

Would you like to give special access rights to other people? You can specify access for other members of your team or any other person. Use the table below to add, edit and delete access rights to your data package.

Name	Organization	Email/Description	Permissions
------	--------------	-------------------	-------------

**Buttons:** Add, Edit, Delete, Move Up, Move Down

Step 14 of 15

**Navigation:** Cancel, < Back, Next >, Finish



# Editing Data Packages: Access Rights



- Select whether to give read access to the public
- To add an additional access privilege or restriction, hit "Add"

New Data Package Wizard

### Access Information

Would you like to allow the public to read your data package?

☒ Yes, give read-only access to public.  
☐ No.

Would you like to give special access rights to other people? You can specify access for other members of your team or any other person. Use the table below to add, edit and delete access rights to your data package.

Name	Organization	Email/Description	Permissions
------	--------------	-------------------	-------------

**Add** **Edit** **Delete** **Move Up** **Move Down**

Step 14 of 15 Cancel < Back Next > Finish





# Editing Data Packages: Access Rights



- Click “Refresh the user list...”
- Select the user or group to give special access rules
- Select “Allow” or “Deny”
- Select the type of access

Define Access:

Select a user or group from the list below:

Name	Email / Description / Distinguished Name
▶ NAPIER	
▶ LTER	
▶ UVM	
▶ unaffiliated	
▶ UCNRS	
▶ SDSC	
▶ PISCO	
▼ OBFS	
● Amanda Nelson (aquaticentomology)	aquaticentomology@yahoo.com
● Audrey Kropp (akropp)	akkool218@aol.com
● Celeste Prussia (cep575t)	cep575t@smsu.edu
● Dan Jones (danincb)	djones@rmbi.org
● Daniel Pritchett (wmrs)	skypilots@wmrs.edu
● David Kuntz (dkuntz)	dkuntz@amnh.org
● Dawn Wilson (dwilson)	dwilson@amnh.org
● Deborah Bowker (debbowker)	bowker@catamountinstitute.org

Refresh the user list...

Allow selected user(s) Read & Write access

Description of access levels:

- Read: Able to view data package.
- Read & Write: Able to view and modify data package.
- Read, Write & Change Permissions: Able to view and modify datapackage, and modify access permissions.
- All: Able to do everything (this is the same as Read, Write & Change Permissions)

OK Cancel



# Editing Data Packages: Access Rights



- Click "Refresh the user list..."
- Select the user or group to give special access rules
- Select "Allow" or "Deny"
- Select the type of access

Define Access:

Select a user or group from the list below:

Name	Email / Description / Distinguished Name
▶ NAPIER	
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▶ SDSC	
▶ PISCO	
▼ OBFS	
● Amanda Nelson (aquaticentomology)	aquaticentomology@yahoo.com
● Audrey Kropp (akropp)	akkool218@aol.com
● Celeste Prussia (cep575t)	cep575t@smsu.edu
● Dan Jones (danincb)	djones@rmbi.org
● Daniel Pritchett (wmrs)	skypilots@wmrs.edu
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OK Cancel



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- **Select "Allow" or "Deny"**
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▶ UVM	
▶ unaffiliated	
▶ UCNRS	
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▼ OBFS	
● Amanda Nelson (aquaticentomology)	aquaticentomology@yahoo.com
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● Celeste Prussia (cep575t)	cep575t@smsu.edu
● Dan Jones (danincb)	djones@rmbi.org
● Daniel Pritchett (wmrs)	skypilots@wmrs.edu
● David Kuntz (dkuntz)	dkuntz@amnh.org
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- All: Able to do everything (Note: same as Read, Write & Change Permissions)

OK Cancel



# Editing Data Packages: Access Rights



- Click "Refresh the user list..."
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▶ unaffiliated	
▶ UCNRS	
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▶ PISCO	
▼ OBFS	
● Amanda Nelson (aquaticentomology)	aquaticentomology@yahoo.com
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● Celeste Prussia (cep575t)	cep575t@smsu.edu
● Dan Jones (danincb)	djones@rmbi.org
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Refresh the user list...

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Description of access levels:

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- Read, Write & Change Permissions: Able to view and modify datapackage, and modify access permissions.
- All: Able to do everything (this is the same as Read, Write & Change Permissions)

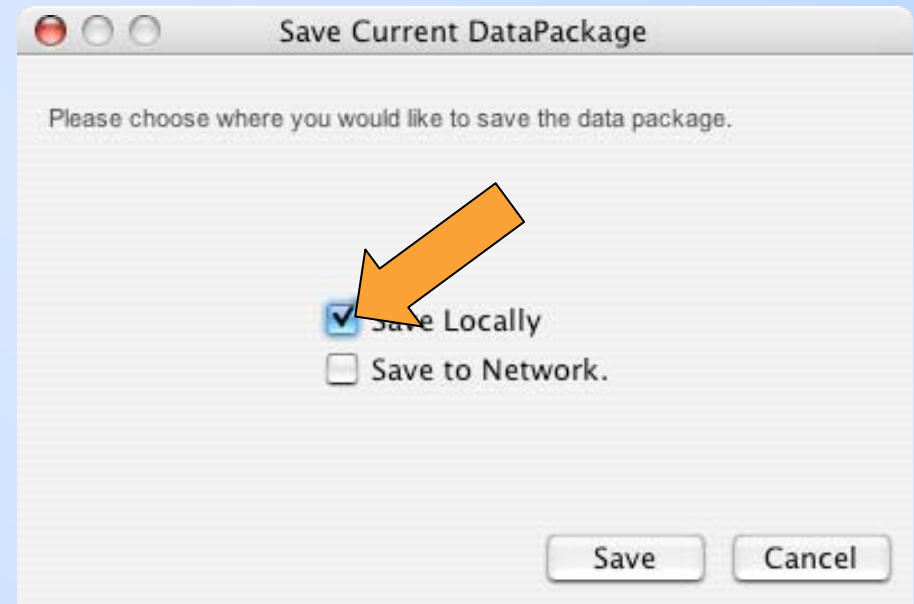
OK Cancel



# Saving Data: Local



- Select "Save..." from the "File" Menu
- Select "Save Locally" from the pop-up window, then deselect "Save to Network" if necessary

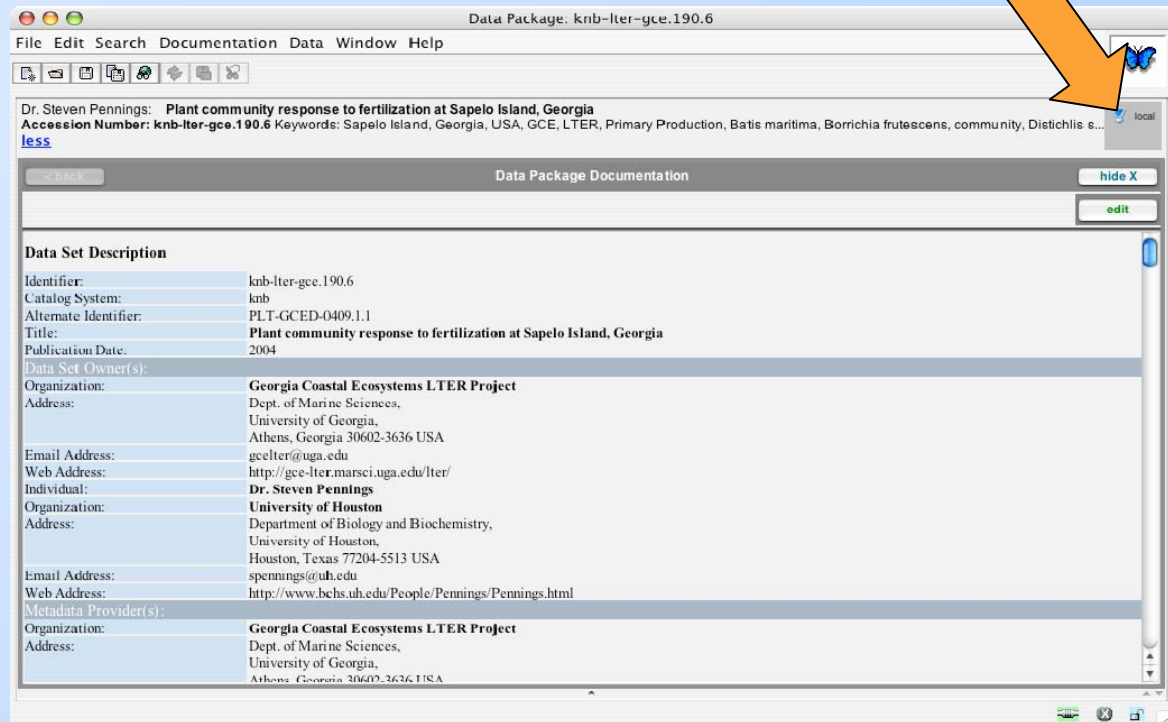




# Saving Data: Local



- You should see “local” and a computer icon in the upper right hand corner below the butterfly



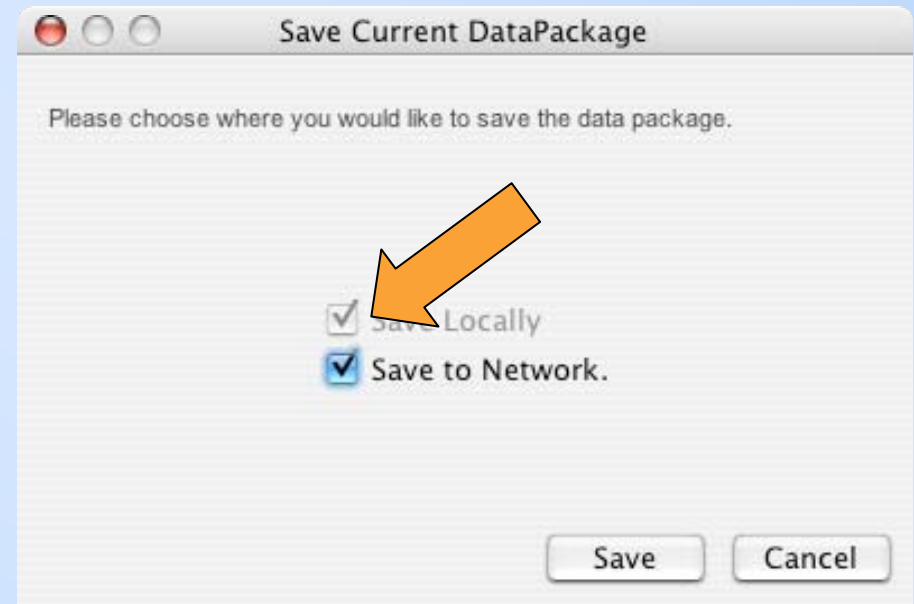




# Saving Data: Network



- Select "Save..." from the "File" menu
- Notice "Save Locally" is grayed out because the local version is the current working copy
- Select "Save to Network"

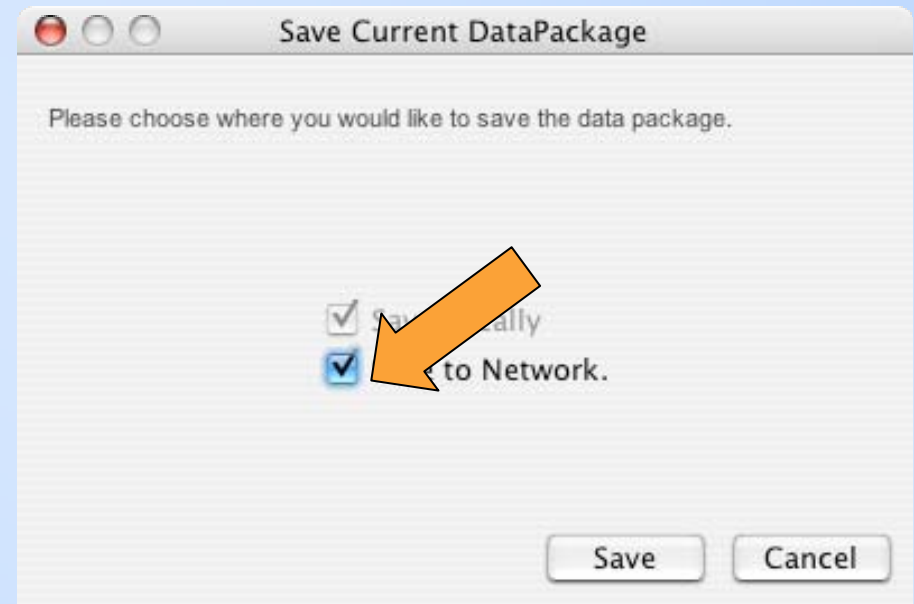




# Saving Data: Network



- Select "Save..." from the "File" menu
- Notice "Save Locally" is grayed out because the local version is the current working copy
- **Select "Save to Network"**





# Saving Data: Network



- You should see "net" and a globe icon in the upper right below the butterfly

Data Package: knb-lter-gce.190.6

File Edit Search Documentation Data Window Help

Dr. Steven Pennings: **Plant community response to fertilization at Sapelo Island, Georgia**  
Accession Number: **knb-lter-gce.190.6** Keywords: Sapelo Island, Georgia, USA, GCE, LTER, Primary Production, Batis maritima, Borrchia frutescens, community, Distichlis s...  
[less](#)

< back Data Package Documentation hide X edit

**Data Set Description**

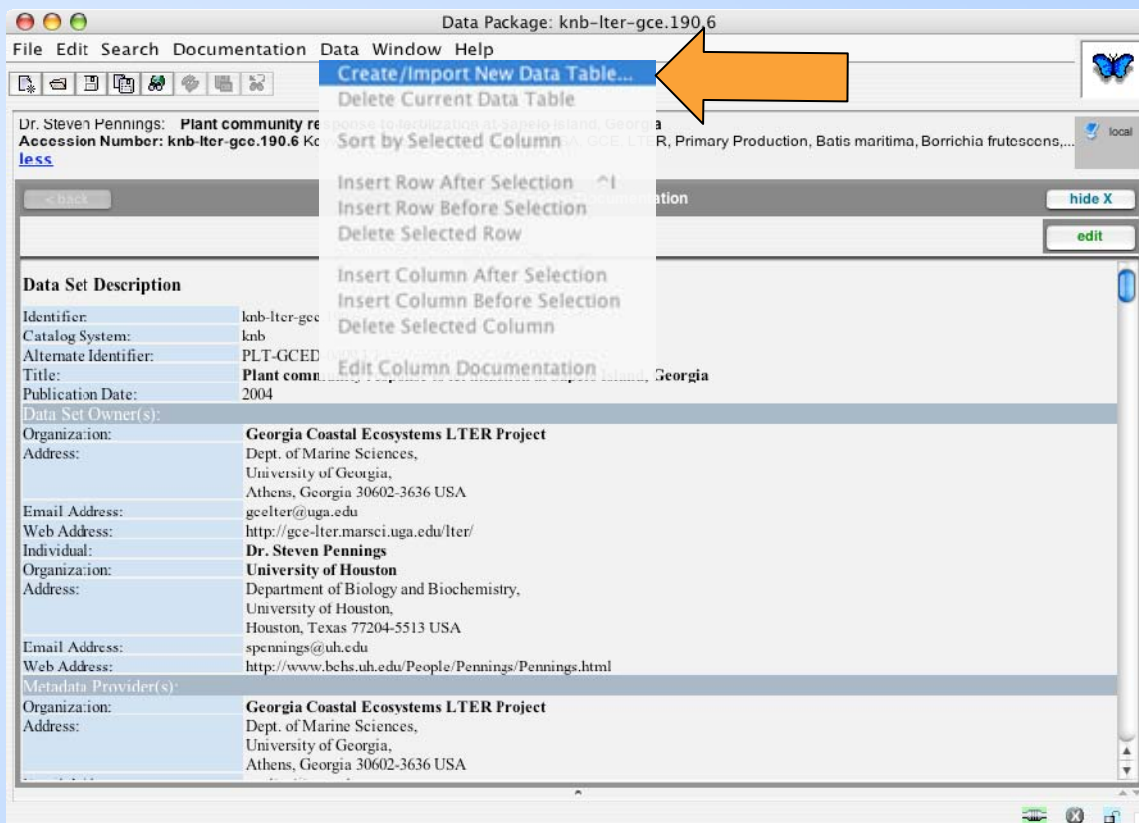
Identifier:	knb-lter-gce.190.6
Catalog System:	knb
Alternate Identifier:	PLT-GCED-0409.1.1
Title:	<b>Plant community response to fertilization at Sapelo Island, Georgia</b>
Publication Date:	2004
Data Set Owner(s):	
Organization:	<b>Georgia Coastal Ecosystems LTER Project</b>
Address:	Dept. of Marine Sciences, University of Georgia, Athens, Georgia 30602-3636 USA
Email Address:	gce.lter@uga.edu
Web Address:	http://gce-lter.marsci.uga.edu/lter/
Individual:	<b>Dr. Steven Pennings</b>
Organization:	<b>University of Houston</b>
Address:	Department of Biology and Biochemistry, University of Houston, Houston, Texas 77204-5513 USA
Email Address:	spennings@uh.edu
Web Address:	http://www.bchs.uh.edu/People/Pennings/Pennings.html
Metadata Provider(s):	
Organization:	<b>Georgia Coastal Ecosystems LTER Project</b>
Address:	Dept. of Marine Sciences, University of Georgia, Athens, Georgia 30602-3636 USA



# Importing Raw Data: The New Data Table Wizard



- Data should be in ASCII, character-delimited format
- Select “Create/Import New Data Table” from the “Data” menu





# New Data Table Wizard: Import Type



- Select “Import” for what you want to do
- Select “Automatic” for how to enter the documentation
- Select the location of the file

**New Data Table Wizard**

Data Location

**Describe and optionally include a data table in your data package.** You may create a table from scratch and populate it using Morpho's spreadsheet-style data editor, or you can import certain types of existing data files and use the wizard to automatically extract much of the documentation from the data file itself. If you choose the second option, you will be prompted to review the information that is extracted and provide any required fields that can not be generated automatically.

You can also manually enter all of the required fields (rather than using the metadata extractor), which is useful for proprietary file types like [redacted] or other file types that are not yet supported.

**What do you want to do?**

- ☐ Create a new, empty data table.
- ☒ **IMPORT** - Import a data file into the package.
- ☐ DESCRIBE - Include only the data file documentation (but not the data file itself) in the package.

**How do you want to enter the documentation for the data?**

- ☒ **AUTOMATIC** - Import the data file and extract the documentation for review.
- ☐ MANUAL - Import the data file but enter the documentation manually.

**File Location:**

Use the "locate" button to locate the data file on your computer:

**File Name:**



# New Data Table Wizard: Import Type



- Select “Import” for what you want to do
- Select “Automatic” for how to enter the documentation
- Select the location of the file

**New Data Table Wizard**

Data Location

**Describe and optionally include a data table in your data package.** You may create a table from scratch and populate it using Morpho's spreadsheet-style data editor, or you can import certain types of existing data files and use the wizard to automatically extract much of the documentation from the data file itself. If you choose the second option, you will be prompted to review the information that is extracted and provide any required fields that can not be generated automatically.

You can also choose to manually enter all of the required fields (rather than using the metadata extractor), which is useful for proprietary file types like Excel, or other file types that are not yet supported.

**What do you want to do?**

- ☐ CREATE - Create a new, empty data table.
- ☒ IMPORT - Import a data file into the package.
- ☐ DESC - Include only the data file documentation (but not the data file itself) in the package.

**How do you want to enter the documentation for the data?**

- ☒ AUTOMATIC - Import the data file and extract the documentation for review.
- ☐ MANUAL - Import the data file but enter the documentation manually.

**File Location:**

Use the "locate" button to locate the data file on your computer:

**File Name:**





# New Data Table Wizard: Import Type



- Select “Import” for what you want to do
- Select “Automatic” for how to enter the documentation
- Select the location of the file

New Data Table Wizard

Data Location

**Describe and optionally include a data table in your data package.** You may create a table from scratch and populate it using Morpho's spreadsheet-style data editor, or you can import certain types of existing data files and use the wizard to automatically extract much of the documentation from the data file itself. If you choose the second option, you will be prompted to review the information that is extracted and provide any required fields that can not be generated automatically.

You can also choose to manually enter all of the required fields (rather than using the metadata extractor), which is useful for proprietary file types like Excel, or other file types that are not yet supported.

**What do you want to do?**

☐ CREATE - Create a new, empty data table.

☒ IMPORT - Import a data file into the package.

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☒ AUTOMATIC - Import the data file and extract the documentation for review.

☐ MANUAL - Import the data file but enter the documentation manually.

**File Location:**

Use the "locate" button to locate the data file on your computer:

**File Name:**



# New Data Table Wizard: Table Information



- Enter a name and description for the table
- Enter line to start importing
- Select whether the first row is a column label

New Data Table Wizard

Text Import Wizard

of screens will create metadata based on the content of the specified data file

Table Name:

Description:

Start import at row:  ☒ Column Labels are in starting row

#	Lines in nceas.227.4.txt
1	Contact Contact info Code Reserve name Source Notes 1: Dot on map? Y or N 1: Specify pl
2	Mark Albert Presidio 11 SF peninsula/ Bay area SFWD - serpentine grasslands/ Nicasio Ri
3	Cini Brown 161 Regional Distribution - This is my general evaluation for the relict
4	Sarah Chaney "Restoration Ecologist, Channel Islands National Park, ph.(805) 658-5778, sa..
5	Peter Connors Bodega Marine Lab 251 Question 3: I don't know. / Question 4: Don't know
6	Sandy DeSimone 291 Starr Ranch Y x x 2 4 3 4 2 3 4 4 "Agriculture
7	John Gerlach 431 Y "dot crossed out, though?" x 4 4 3 3 3 4 2 3 4
8	Fred Hrusa 591 Santa Rosa Island Y Santa Rosa Island - N side x x 4 2 1
9	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
10	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
11	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
12	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
13	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
14	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
15	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
16	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..

Step #1



# New Data Table Wizard: Table Information



- Enter a name and description for the table
- Enter line to start importing
- Select whether the first row is a column label

New Data Table Wizard

Text Import Wizard

This set of screens will create metadata based on the content of the specified data file

Table Name:

Description:

Start import at row:  ☒ Column Labels are in starting row

#	Lines in nceas.227.4.txt
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7	John Gerlach 431 Y "dot crossed out, though?" x 4 4 3 3 3 4 2 3 4
8	Fred Hrusa 591 Santa Rosa Island Y Santa Rosa Island - N side x x 4 2 1
9	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
10	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
11	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
12	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
13	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
14	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
15	Cort Johnson "Permanent address:johnson_cort@hotmail.com, 10995 Guadalupe Way, San Diego..
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Step #1



# New Data Table Wizard: Table Information



- Enter a name and description for the table
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- **Select whether the first row is a column label**

New Data Table Wizard

Text Import Wizard

This set of screens will create metadata based on the content of the specified data file

Table Name:

Description:

Start import at row:  ☒ Column Labels are in starting row

Lines in nceas.227.4.txt

#	Contact	Contact info	Code	Reserve name	Source	Notes	1: Dot on map?	Y or N	1: Specify pl
1	Mark Albert	Presidio	11	SF peninsula/ Bay area	SFWD	- serpentine grasslands/ Nicasio Ri			
2	Cini Brown	161		Regional Distribution -		This is my general evaluation for the relic			
3	Sarah Chaney	"Restoration Ecologist,		Channel Islands National Park,	ph.(805) 658-5778,	sa..			
4	Peter Connors	Bodega Marine Lab 251		Question 3: I don't know. /	Question 4: Don't know				
5	Sandy DeSimone	291 Starr Ranch	Y	x	x	2 4 3 4 2 3 4 4			"Agriculture
6	John Gerlach	431	Y	"dot crossed out, though?"	x	4 4 3 3 3 4 2 3 4			
7	Fred Hrusa	591 Santa Rosa Island	Y	Santa Rosa Island -	N side	x			x 4 2 1
8	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
9	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
10	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
11	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
12	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
13	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
14	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
15	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				
16	Cort Johnson	"Permanent address:johnson_cort@hotmail.com,	10995	Guadalimar Way,	San Diego..				

Step #1





# New Data Table Wizard: Table Information



- Select the characters that separate values
- Check in window to ensure the table looks correct

New Data Table Wizard

Text Import Wizard

If the columns indicated in the table are incorrect, try changing the assumed delimiter(s)

Delimiters: ☒ tab ☐ comma ☐ space ☐ semicolon ☐ other

☐ Treat consecutive delimiters as one

Contact	Contact Info	Code	Reserve name	Source	Notes	1: Dot on m	1: Specify pl	2a: 0-5%	2b: 6-25%	2c
Mark Albert	Presidio	11	SF penins...		SPWD - se...	Y	SF penins...			
Cini Brown		161			Regional ...					
Sarah Cha...	"Restorati...	221	Channel Is...		Don't und...	Y	Santa Ros...			
Peter Con...	Bodega M...	251			Question ...	Y	Sonoma a...	x		
Sandy DeS...		291	Starr Ranch			Y			x	
John Gerla...		431				Y	"dot cross...	x		
Fred Hrusa		591	Santa Ros...			Y	Santa Ros...			x
Cort Johns...	"Permane...	0641-1	"Ano Nuev...		"My study ...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-2	"Ano Nuev...		Bromus ca...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-3	"Ano Nuev...		Calamagr...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-4	"Ano Nuev...		Danthonia...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-5	"Ano Nuev...		Desclamp...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-6	"Ano Nuev...		Elymus gl...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-7	"Ano Nuev...		Eruiltisetu...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-8	"Ano Nuev...		Festuca id...	Y	Santa Cru...	x		

Step #2 of 46

Cancel < Back Next > Import



# New Data Table Wizard: Table Information



- Select the characters that separate values
- Check in window to ensure the table looks correct

New Data Table Wizard

Text Import Wizard

If the columns indicated in the table are incorrect, try changing the assumed delimiter(s)

Delimiters: ☒ tab ☐ comma ☐ space ☐ semicolon ☐ other

☐ Treat consecutive delimiters as one

Contact	Contact Info	Code	Reserve name	Source	1: Dot on m	1: Specify pl	2a: 0-5%	2b: 6-25%	2c
Mark Albert	Presidio	11	SF penins...	se...	Y	SF penins...			
Cini Brown		161		Regional ...					
Sarah Cha...	"Restorati...	221	Channel Is...	Don't und...	Y	Santa Ros...			
Peter Con...	Bodega M...	251		Question ...	Y	Sonoma a...	x		
Sandy DeS...		291	Starr Ranch		Y			x	
John Gerla...		431			Y	"dot cross...	x		
Fred Hrusa		591	Santa Ros...		Y	Santa Ros...			x
Cort Johns...	"Permane...	0641-1	"Ano Nuev...	"My study ...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-2	"Ano Nuev...	Bromus ca...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-3	"Ano Nuev...	Calamagr...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-4	"Ano Nuev...	Danthonia...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-5	"Ano Nuev...	Desclamp...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-6	"Ano Nuev...	Elymus gl...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-7	"Ano Nuev...	Eruiltisetu...	Y	Santa Cru...	x		
Cort Johns...	"Permane...	0641-8	"Ano Nuev...	Festuca id...	Y	Santa Cru...	x		

Step #2 of 46

Cancel < Back Next > Import





# New Data Table Wizard: Columns



- Enter a name and description
- Select the type of data in the column
- For more information on column types, hit "Help"

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer, float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

☐ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin

☐ Date-Time: date or time values from the Gregorian calendar e.g.: 2002-10-24



# New Data Table Wizard: Columns



- Enter a name and description
- Select the type of data in the column
- For more information on column types, hit "Help"

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer, float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

☐ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin

☐ Date-Time: date or time values from the Gregorian calendar e.g.: 2002-10-24



# New Data Table Wizard: Columns



- Enter a name and description
- Select the type of data in the column
- For more information on column types, hit "Help"

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer, float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Categories:**

- ☐ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High
- ☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters
- ☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin
- ☐ Date-Time: date or time values from the Gregorian calendar e.g.: 2002-10-24

**Help**

OK Cancel



# New Data Table Wizard: Column Types



- Categories were derived from a Stevens 1951 paper on levels of measurement
  - Unordered - categorical labels with no inherent ranking (male and female)
  - Ordered - ranked data (low to high)
  - Relative - numerical data where values are evenly spaced (degrees Fahrenheit)
  - Absolute - numerical data with a meaningful zero point (degrees Kelvin)
  - Date-Time - used for temporal measurement (2005-10-31 14:15:00)



# Column Types: Unordered and Ordered



- Hit "Add" to enter a new code
- Enter the code and its definition in the space provided
- Select whether columns have values other than the codes listed

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

- ☒ **Unordered:** unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ **Ordered:** ordered categories (statistically **ordinal**) e.g.: Low, High
- ☐ **Relative:** values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters
- ☐ **Absolute:** measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin
- ☐ **Date-Time:** date or time values from the Gregorian calendar e.g.: 2002-10-24

**Unordered**

**Choose:**  Describe any codes that are used as values of the attribute.

**Location:**

**Definitions:**

Code	Definition
<input type="text"/>	

☐ Attribute contains free-text in addition to those values listed above



# Column Types: Unordered and Ordered



- Hit "Add" to enter a new code
- Enter the code and its definition in the space provided
- Select whether columns have values other than the codes listed

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

- ☒ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High
- ☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters
- ☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin
- ☐ Date-Time: date or time values from the Gregorian calendar e.g.: 2002-10-24

**Unordered**

**Choose:**  Enumerated values (belong to predefined list) Describe any codes that are used as values of the attribute.

**Location:**  Codes are defined here

Code	Definition

**Definitions:**

☐ Attribute contains free-text in addition to those values listed above

**Add** **Delete**

**OK** **Cancel**





# Column Types: Unordered and Ordered



- Hit "Add" to enter a new code
- Enter the code and its definition in the space provided
- Select whether columns have values other than the codes listed

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

- ☒ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High
- ☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters
- ☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin
- ☐ Date-Time: date or time values from the Gregorian calendar e.g.: 2002-10-24

**Unordered**

**Choose:**  Describe any codes that are used as values of the attribute.

**Location:**

Code	Definition
<input type="text"/>	

☐ contains free-text in addition to those values listed above



# Column Types: Unordered and Ordered



- Can also specify that columns contain text according to a certain format
- Enter the description of the format

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: Integer, float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

- ☒ **Unordered:** unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ **Ordered:** ordered categories (statistically **ordinal**) e.g.: Low, High
- ☐ **Relative:** values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters
- ☐ **Absolute:** measurement scale with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin
- ☐ **Date-Time:** date and time values from the Gregorian calendar e.g.: 2002-10-24

**Unordered**

**Choose:**  Describe a free text domain for the attribute

**Definition:**  e.g.: U.S. telephone numbers in the format (999) 888-7777

**Source:**  e.g.: FIPS standard for postal abbreviations for U.S. states

**Pattern(s) (optional):**

**Pattern(s):**  Patterns are interpreted as regular expressions constraining allowable character sequences. e.g.: '[0-9]{3}-[0-9]{3}-[0-9]{4}' allows only numeric digits in the pattern of US phone numbers



# Column Types: Unordered and Ordered



- Can also specify that columns contain text according to a certain format
- Enter the description of the format

Define Attribute or Column:

Name:  Name of the attribute as it appears in the data file

Label:  A more readable label for the attribute

Definition:  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

Storage:  Storage type for this field e.g.: Integer, float

Storage System:  The system used to define the storage types e.g.: C, Java, Oracle

Category:

☒ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g.: 12.2 meters

☐ Absolute: measurements with a meaningful zero point (statistically **ratio**) e.g.: 273 Kelvin

☐ Date-Time: date or times from the Gregorian calendar e.g.: 2002-10-24

Unordered

Choose:  Text values (free form, matching a pattern) Describe a free text domain for the attribute

Definition:  e.g.: U.S. telephone numbers in the format (999) 888-7777

Source:  e.g.: FIPS standard for postal abbreviations for U.S. states

Pattern(s) (optional):  Add Delete

Pattern(s):  Patterns are interpreted as regular expressions constraining allowable character sequences. e.g.: '[0-9]{3}-[0-9]{3}-[0-9]{4}' allows only numeric digits in the pattern of US phone numbers

OK Cancel



# Column Types: Relative and Absolute



- Select the units of measurement (can define new unit if necessary)
- Enter the precision of measurement
- Select the number type
- Enter bounds

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g.: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g.: integer, float

**Storage System:**  The system used to define the storage types e.g.: C, Java, Oracle

**Category:**

- ☐ Unordered: unordered categories or text (statistically **nominal**) e.g.: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g.: Low, High
- ☒ Relative: values from a scale with meaningful points (statistically **interval**) e.g.: 12.2 meter
- ☐ Absolute: measurement scale with meaningful zero point (statistically **ratio**) e.g.: 273 K
- ☐ Date-Time: date or time values using the Gregorian calendar e.g.: 2002-10-24

**Relative**

**Standard Unit:**

**Precision:**  e.g.: for an attribute with unit "meter", a precision of "0.1" would be interpreted as precise to the nearest 1/10th of a meter

**Number Type:**

**Bounds:**

Min.	Max.
<input type="text"/>	<input type="text"/>



# Column Types: Relative and Absolute



- Select the units of measurement (can define new unit if necessary)
- Enter the precision of measurement
- Select the number type
- Enter bounds

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g: integer, float

**Storage System:**  The system used to define the storage types e.g: C, Java, Oracle

**Category:**

- ☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High
- ☒ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters
- ☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin
- ☐ Date-Time: time values from the Gregorian calendar e.g: 2002-10-24

**Relative**

**Standard Unit:**   e.g: for an attribute with unit "meter", a precision of "0.1" would be interpreted as precise to the nearest 1/10th of a meter

**Precision:**

**Number Type:**  REAL (+/- fractions & non-fractions: -1/2, 3.1...)

**Bounds:**

Min.	Max.
<input type="text"/>	<input type="text"/>





# Column Types: Relative and Absolute



- Select the units of measurement (can define new unit if necessary)
- Enter the precision of measurement
- Select the number type
- Enter bounds

Define Attribute or Column:

Name:  Name of the attribute as it appears in the data file

Label:  A more readable label for the attribute

Definition:  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

Storage:  Storage type for this field e.g: integer, float

Storage System:  The system used to define the storage types e.g: C, Java, Oracle

Category:

☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High

☒ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin

☐ Date-Time: date or time values from the Gregorian calendar e.g: 2002-10-24

Help

Relative

Standard Unit:  Select a Unit Type

Precision:  e.g: for an attribute with unit "meter", a precision of "0.1" would be interpreted as precise to the nearest 1/10th of a meter

Number Type:  REAL (+/- fraction-fractions: -1/2, 3.1...

Bounds:  Min.  Max.

OK Cancel





# Column Types: Relative and Absolute



- Select the units of measurement (can define new unit if necessary)
- Enter the precision of measurement
- Select the number type
- Enter bounds

**Define Attribute or Column:**

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g: integer, float

**Storage System:**  The system used to define the storage types e.g: C, Java, Oracle

**Category:**

- ☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female
- ☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High
- ☒ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters
- ☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin
- ☐ Date-Time: date or time values from the Gregorian calendar e.g: 2002-10-24

**Relative**

**Standard Unit:**

**Precision:**  e.g: for an attribute with unit "meter", a precision of "0.1" would be interpreted as precision to the nearest 1/10th of a meter

**Number Type:**

**Bounds:**

Min.	Max.
<input type="text"/>	<input type="text"/>



# Column Types: Date/Time



- Enter the date-time format
- Enter the precision of measurement
- Enter the bounds of measurement

Define Attribute or Column:

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g: integer, float

**Storage System:**  The system used to define the storage types e.g: C, Java, Oracle

**Category:**

☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin

☒ Date-Time: date or time from the Gregorian calendar e.g: 2002-10-24

**Datetime**

**Format:**  e.g: YYYY-MM-DDThh:mm:ss, YYYY-MM-DD, hh:mm:ss.sss

**Precision:**  Precision of a date or time measurement, interpreted in the smallest units represented by the datetime format. e.g: 1 day, 1 hour, 1 minute

**Bounds:**

Min.				Max.

Range of permitted values, in same date-time format as used in the format description above. e.g if format is "YYYY-MM-DD", a valid minimum would be "2001-05-29"



# Column Types: Date/Time



- Enter the date-time format
- Enter the precision of measurement
- Enter the bounds of measurement

Define Attribute or Column:

**Name:**  Name of the attribute as it appears in the data file

**Label:**  A more readable label for the attribute

**Definition:**  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

**Storage:**  Storage type for this field e.g: integer, float

**Storage System:**  The system used to define the storage types e.g: C, Java, Oracle

**Category:**

☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin

☒ Date-Time: date or time values from the Gregorian calendar e.g: 2002-10-24

**Datetime**

**Format:**  e.g: YYYY-MM-DDThh:mm:ss, YYYY-MM-DD, hh:mm:ss.sss

**Precision:**  Precision of a date or time measurement, interpreted in the smallest units represented by the datetime format. e.g: 1 day, 1 hour, 1 minute

**Bounds:**

Min.				Max.

Range of permitted values, in same date-time format as used in the format description above. e.g if format is "YYYY-MM-DD", a valid minimum would be "2001-05-29"



# Column Types: Date/Time



- Enter the date-time format
- Enter the precision of measurement
- Enter the bounds of measurement

Define Attribute or Column:

Name:  Name of the attribute as it appears in the data file

Label:  A more readable label for the attribute

Definition:  Define the contents of the attribute (or column) precisely, so that a data user could interpret the attribute accurately.  
e.g: "spden" is the number of individuals of all macro invertebrate species found in the plot

Storage:  Storage type for this field e.g: integer, float

Storage System:  The system used to define the storage types e.g: C, Java, Oracle

Category:

☐ Unordered: unordered categories or text (statistically **nominal**) e.g: Male, Female

☐ Ordered: ordered categories (statistically **ordinal**) e.g: Low, High

☐ Relative: values from a scale with equidistant points (statistically **interval**) e.g: 12.2 meters

☐ Absolute: measurement scale with a meaningful zero point (statistically **ratio**) e.g: 273 Kelvin

☒ Date-Time: date or time values from the Gregorian calendar e.g: 2002-10-24

Help

Datetime

Format:  e.g: YYYY-MM-DD, YYYY-MM-DD, hh:mm:ss.sss

Precision:  Precision of a time measurement, interpreted in the smallest units represented. e.g: 1 day, 1 hour, 1 minute

Bounds:

Min.				Max.

Add Range of permitted values, in same date-time format as used in the format description above. e.g if format is "YYYY-MM-DD", a valid minimum would be "2001-05-29"

Delete

OK Cancel



# The Completed Data Package



- Click on a table tab to view that table
- Click on column header to see attribute level metadata
- Click "More" to see data package level metadata
- Right-click in table to edit table structure or documentation

Data Package: wtyburczy.52.1

File Edit Search Documentation Data Window Help

Will Tyourczy: **Test Data Set**  
Accession Number: wtyburczy.52.1 Keywords: estuarine habitat  
[more](#)

Table 1

date	dimensionless	text
Date	Count	Rank
2005-01...	47	1
2005-03...	15	3
2004-02...	2	2
1999-01...	10	1
2005-01...	3	1
2005-03...	1	3
2004-02...	23	2
1999-01...	105	1
2005-01...	4	1
2005-01...	3	1
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-03...	1	3
2005-01...	3	1
2005-01...	4	1
2005-01...	3	2

Entity/Attribute [hide X](#)

[back](#) [edit](#)

Column Name **Date**  
Column Label  
Definition The date of collection  
Type of Value  
Measurement Type datetime  
Format YYYY-MM-DD  
Measurement Domain Precision 1  
Missing Value Code  
Accuracy Report  
Accuracy Assessment  
Coverage  
Method

Table 1





# The Completed Data Package



- Click on a table tab to view that table
- Click on column header to see attribute level metadata
- Click "More" to see data package level metadata
- Right-click in table to edit table structure or documentation

Data Package: wtyburczy.52.1

File Edit Search Documentation Data Window Help

Will Tyourczy: Test Data Set  
Accession Number: wtyburczy.52.1 Keywords: estuarine habitat  
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2004-02...	23	2
1999-01...	105	1
2005-01...	4	1
2005-01...	3	1
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-03...	1	3
2005-01...	3	1
2005-01...	4	1
2005-01...	3	2

Entity/Attribute

Column Name Date

Column Label

Definition The date of collection

Type of Value

Measurement Type datetime

Format YYYY-MM-DD

Measurement Domain Precision 1

Missing Value Code

Accuracy Report

Accuracy Assessment

Coverage

Method

Table 1





# The Completed Data Package



- Click on a table tab to view that table
- Click on column header to see attribute level metadata
- Click "More" to see data package level metadata
- Right-click in table to edit table structure or documentation

Will You Access Data Set  
Access: wtyburczy.52.1 Keywords: estuarine habitat  
[more](#)

date	Count	Rank
2005-01...	47	1
2005-03...	15	3
2004-02...	2	2
1999-01...	10	1
2005-01...	3	1
2005-03...	1	3
2004-02...	23	2
1999-01...	105	1
2005-01...	4	1
2005-01...	3	1
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-01...	3	2
2005-03...	1	3
2005-03...	1	3
2005-01...	3	1
2005-01...	4	1
2005-01...	3	2

Entity/Attribute

Column Name: Date  
Column Label:  
Definition: The date of collection  
Type of Value: datetime  
Measurement Type: datetime  
Format: YYYY-MM-DD  
Measurement Domain: Precision  
Missing Value Code:  
Accuracy Report:  
Accuracy Assessment:  
Coverage:  
Method:



# The Completed Data Package



- Click on a table tab to view that table
- Click on column header to see attribute level metadata
- Click "More" to see data package level metadata
- Right-click in table to edit table structure or documentation

Data Package: wtyburczy.52.1

File Edit Search Documentation Data Window Help

Will Tyourczy: **Test Data Set**  
Accession Number: wtyburczy.52.1 Keywords: estuarine habitat  
[more](#)

Table 1

date	count	text
2005-01...	47	
2005-03...	15	
2004-02...	2	
1999-01...	10	
2005-01...		
2005-03...		
2004-02...		
1999-01...		
2005-01...		
2005-01...		
2005-03...		
2005-01...		
2005-03...		
2005-01...	3	1
2005-01...	4	1
2005-01...	3	2

Right-click context menu options:

- Accession Number...
- Create/Import New Data Table...
- Delete Current Data Table
- Sort by Selected Column
- Insert Row After Selection
- Insert Row Before Selection
- Delete Selected Row
- 2005-03... Insert Column After Selection
- 2005-01... Insert Column Before Selection
- Delete Selected Column
- Edit Column Documentation

Entity/Attribute metadata for Date:

- Column Name: Date
- Column Label:
- Definition: The date of collection
- Type of Value:
- Measurement Type: datetime
- Format: YYYY-MM-DD
- Measurement Domain: Precision 1
- Missing Value Code
- Accuracy Report
- Accuracy Assessment
- Coverage
- Method



# Advanced Editing: The Morpho Tree Editor



- “Add/Edit Documentation” Menu item from package window

The screenshot shows the Morpho Editor window. On the left is a tree view of the 'eml' package structure, including fields like 'packageId', 'system', 'scope', 'dataset', 'id', 'system', 'scope', 'title', 'creator', 'keywordSet', 'contact', 'access', and 'dataTable'. The 'dataset' field is selected. On the right is the 'dataset' form, which includes fields for 'id', 'system', 'scope', 'title', and 'creator'. The 'id' field contains the value '1129592697481'. The 'system' field is empty. The 'scope' field contains the value 'document'. The 'title' field contains the value 'Test Data Set'. The 'creator' field is empty. At the bottom of the window, there is a legend for field types: blue circle for 'required; repeatable (ONE to MANY)', red circle for 'required (ONE)', green circle for 'optional; repeatable (ZERO to MANY)', and yellow circle for 'optional (ZERO to ONE)'. The 'OK' and 'Cancel' buttons are at the bottom right.



# Advanced Editing: The Morpho Tree Editor



- Allows entry of uncommonly used EML elements, which are not available from wizards
- Can view whole EML document
- Still under active development

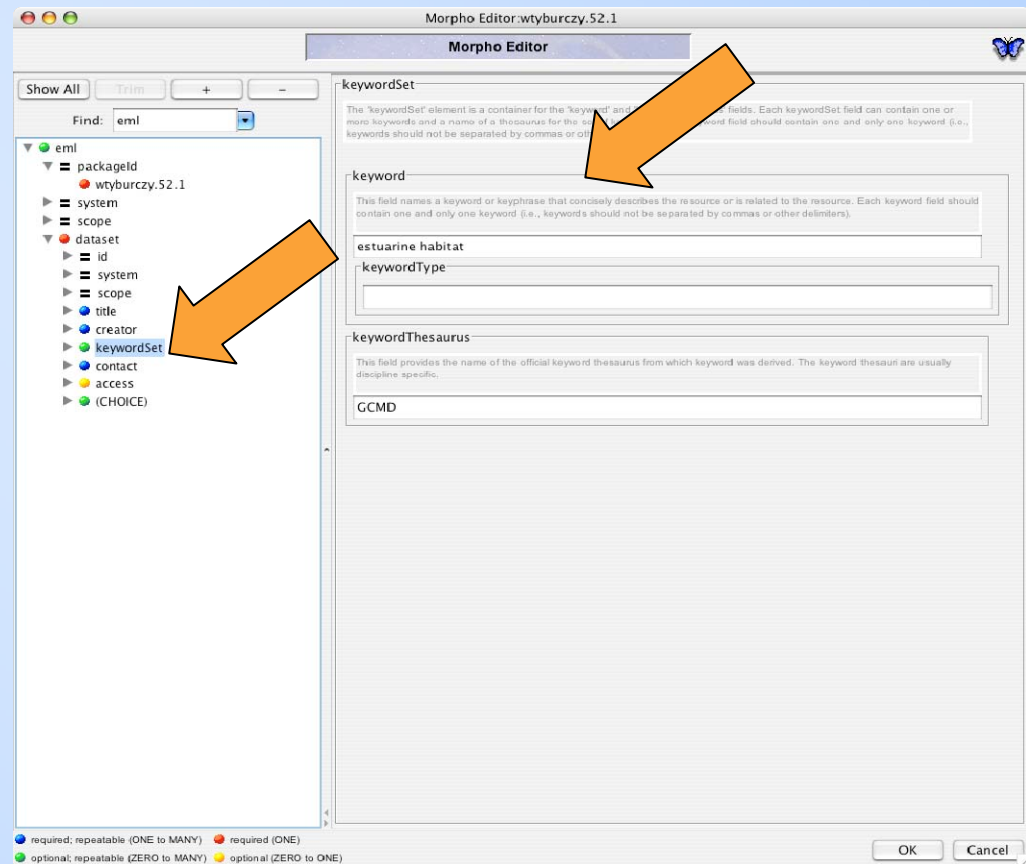
The screenshot shows the Morpho Editor window. On the left is a tree view of the EML document structure. The tree is expanded to show the 'dataset' element, which contains 'id', 'system', 'scope', 'title', 'creator', 'keywordSet', 'contact', 'access', and a choice of 'dataTable'. The 'dataTable' is selected. On the right is the editing area for the selected element. It shows the 'packageId' field with the value 'wtyburczv.52.1'. The 'system' field is 'knb'. The 'scope' field is 'system'. The 'dataset' section contains a description of the dataset type. The 'id' field is empty. The 'system' field is empty. The 'scope' field is 'document'. The 'title' field contains the text 'Test Data Set'. The 'creator' section contains a description of the responsible party field. The 'id' field is '1129592697481'. The 'system' field is empty. The 'scope' field is 'document'. At the bottom of the window is a legend for the tree view: a blue dot for 'required; repeatable (ONE to MANY)', a red dot for 'required (ONE)', a green dot for 'optional; repeatable (ZERO to MANY)', and a yellow dot for 'optional (ZERO to ONE)'. The 'OK' and 'Cancel' buttons are at the bottom right.



# Advanced Editing: Navigating the document



- Select an element to see its sub-elements and values on the right
- Double-click to see its sub-elements on the left
- Shortcuts to some nodes available from the drop-down menu

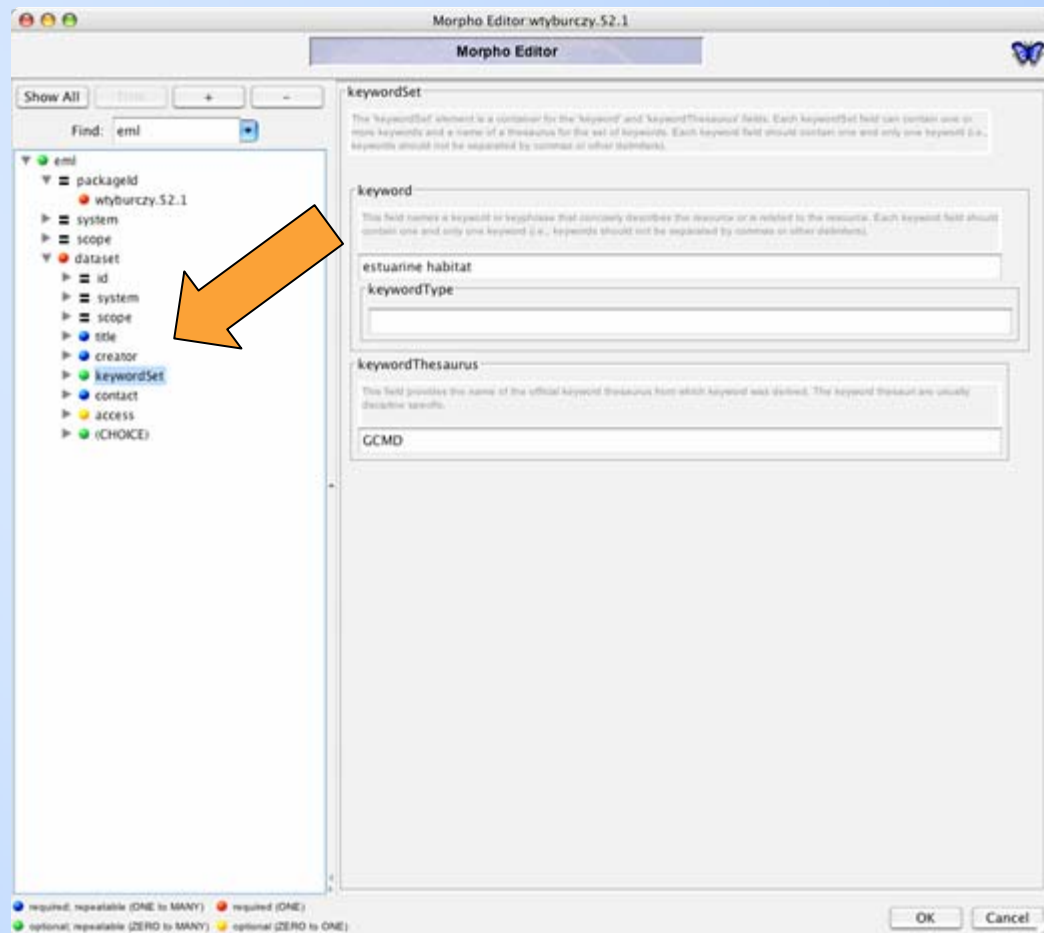




# Advanced Editing: Navigating the document



- Select an element to see its sub-elements and values on the right
- **Double-click** to see its sub-elements on the left
- Shortcuts to some nodes available from the drop-down menu



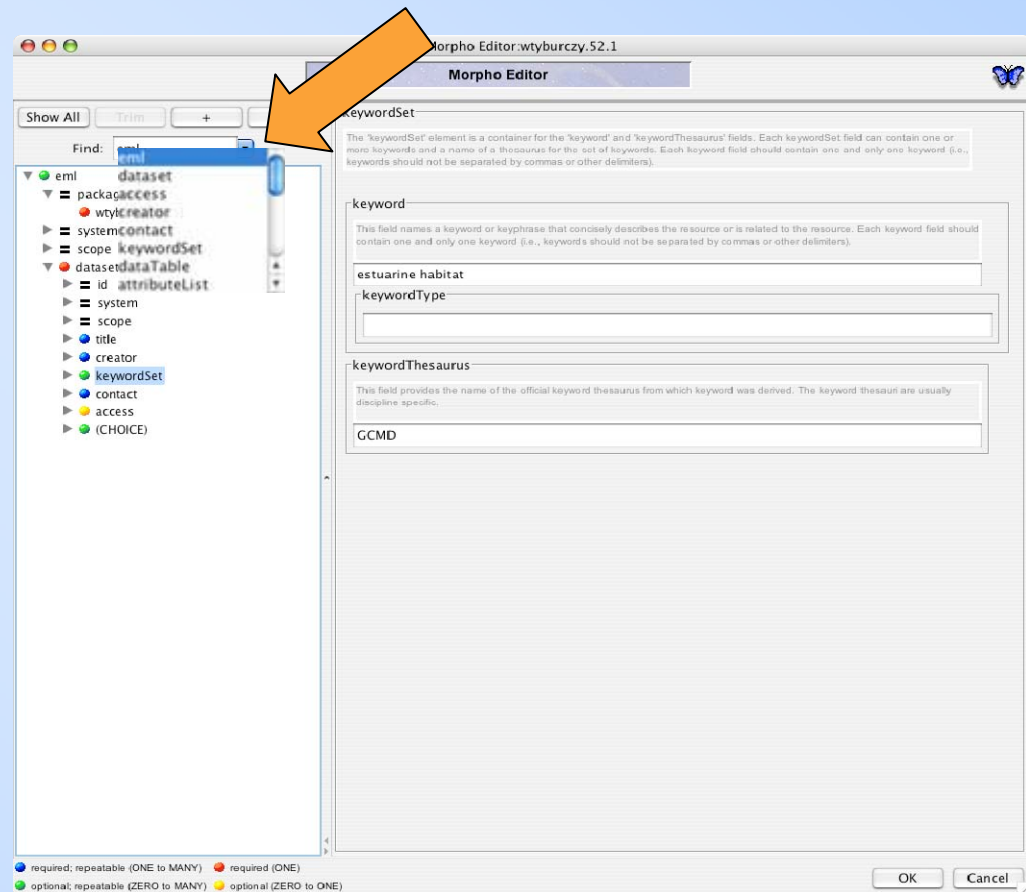




# Advanced Editing: Navigating the document



- Select an element to see its sub-elements and values on the right
- Double-click to see its sub-elements on the left
- Shortcuts to some nodes available from the drop-down menu

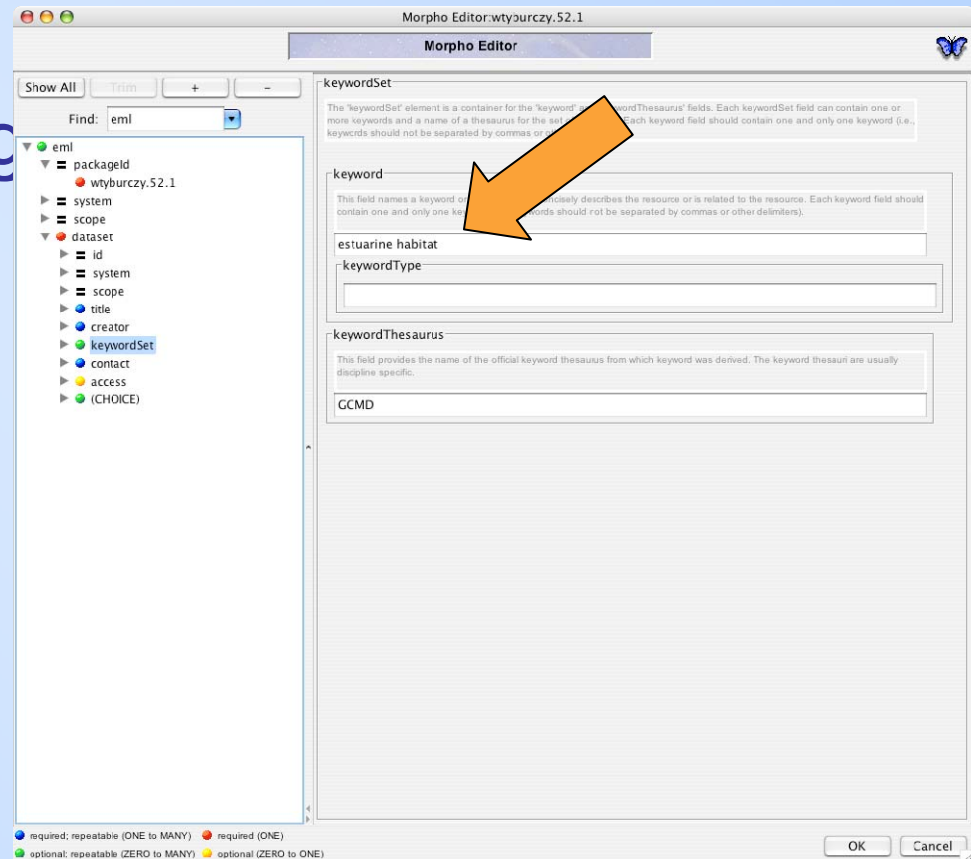




# Advanced Editing: Editing Elements



- Edit the value of an element by changing the text on the right
- Right-click an element on the left to delete, copy, or paste it

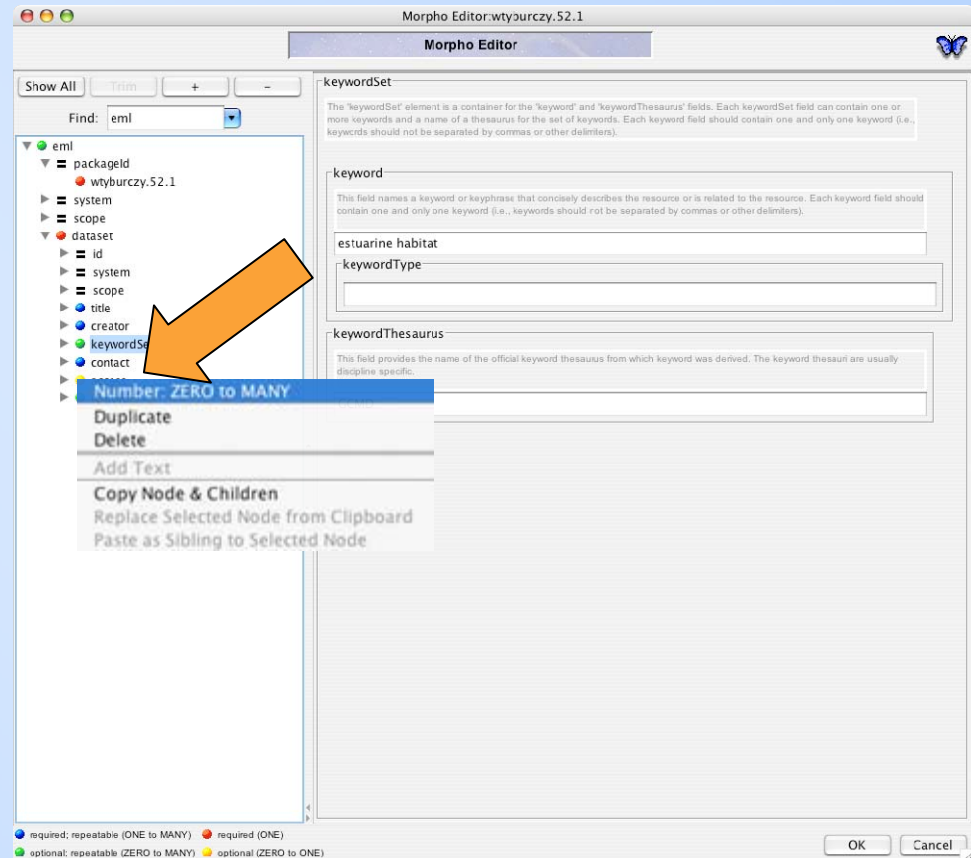




# Advanced Editing: Editing Elements



- Edit the value of an element by changing the text on the right
- Right-click an element on the left to delete, copy, or paste it

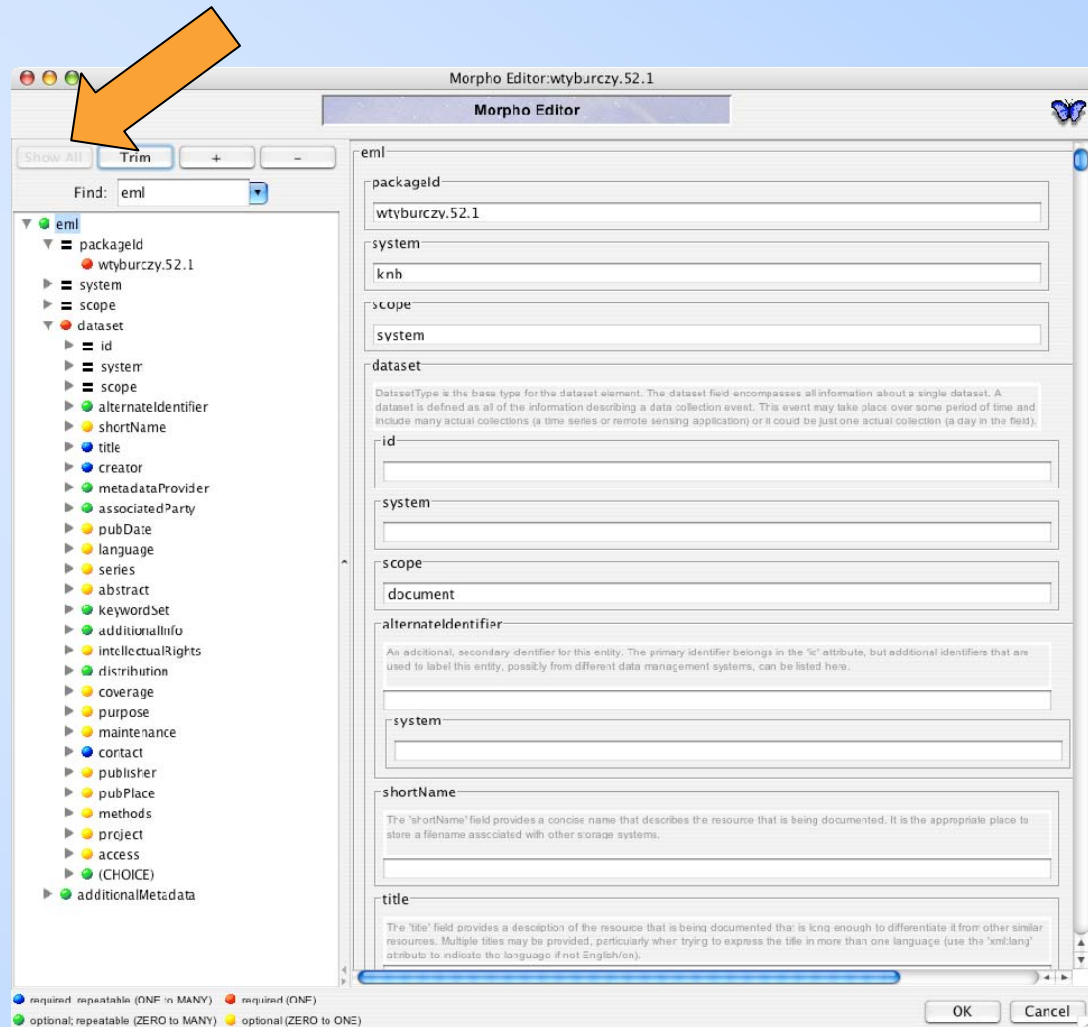




# Advanced Editing: Show All and Trim



- To see available elements not currently in the data package, hit “Show All”
- After entering information for desired additional elements, hit “Trim”

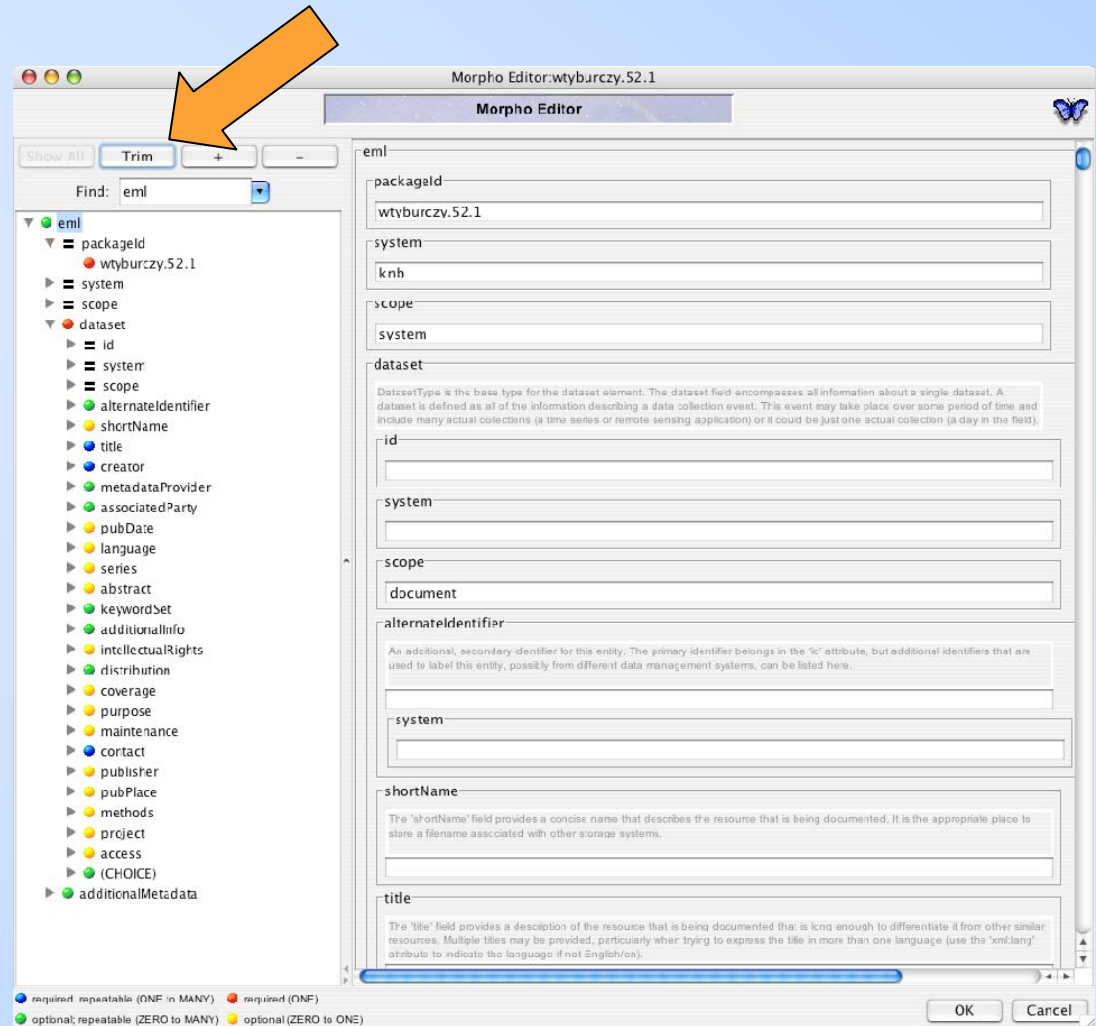




# Advanced Editing: Show All and Trim



- To see available elements not currently in the data package, hit "Show All"
- After entering information for desired additional elements, hit "Trim"





# Searching for data packages



Search

Query Title:

☒ Network Search ☒ Local Search

Subject Taxonomic Spatial Options

Check boxes determine which metadata fields are searched.

☒ Title  
☒ All ☒ Abstract   
☒ Keywords

☐ And ☒ Or

☐ Combine constraints from all tabs

- Search on local disks or network
- Search multiple terms using "More"
- Combine subject search with taxonomic and spatial constraints





# Searching for data packages



Search

Query Title:  ☒ Network Search ☒ Local Search

Subject Taxonomic Spatial Options

Check boxes determine which metadata fields are searched.

☒ Title  
☒ All ☒ Abstract contains   
☒ Keywords

☐ And ☒ Or

☐ Combine constraints from all tabs

- Search on local disks or network
- **Search multiple terms using "More"**
- Combine subject search with taxonomic and spatial constraints



# Searching for data packages



Search


Query Title:  ☒ Network Search ☒ Local Search

Subject Taxonomic Spatial Options

Check boxes determine which metadata fields are searched.

☒ Title  
☒ All ☒ Abstract contains   
☒ Keywords

☐ And ☒ Or More Fewer

☐ Combine constraints from all tabs 

Search Cancel

- Search on local disks or network
- Search multiple terms using "More"
- **Combine subject search with taxonomic and spatial constraints**



# Searching for data packages



Search

Query Title:

☐ Network Search ☒ Local Search

Subject Taxonomic Spatial Options

Species starts-with

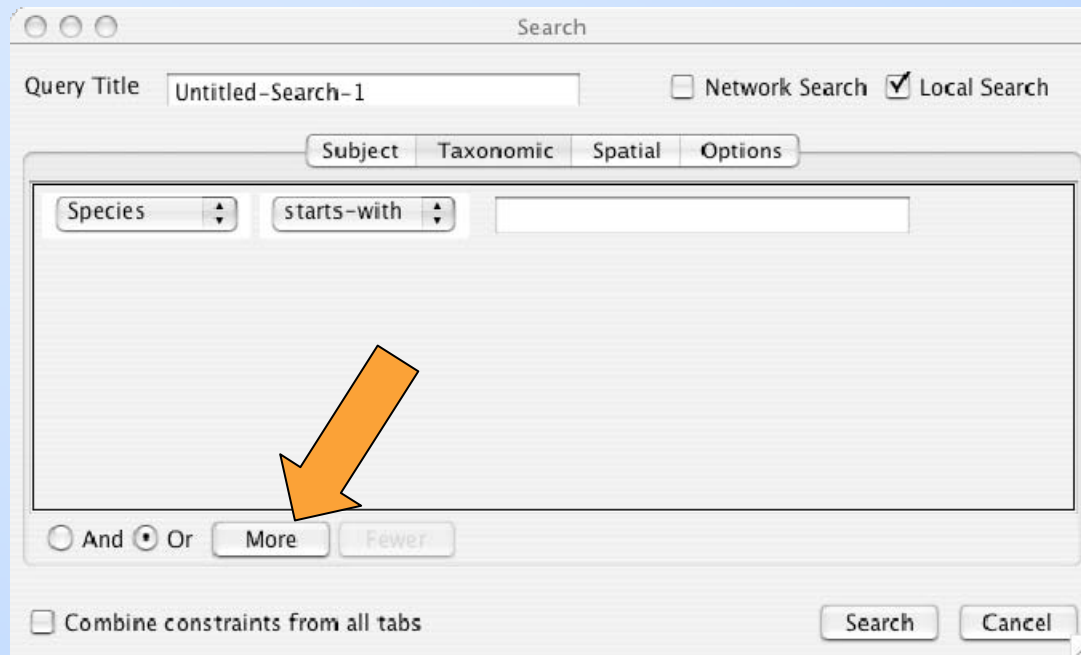
☐ And ☒ Or

☐ Combine constraints from all tabs

- Select taxonomic rank and enter name
- Can search multiple taxa using "More"



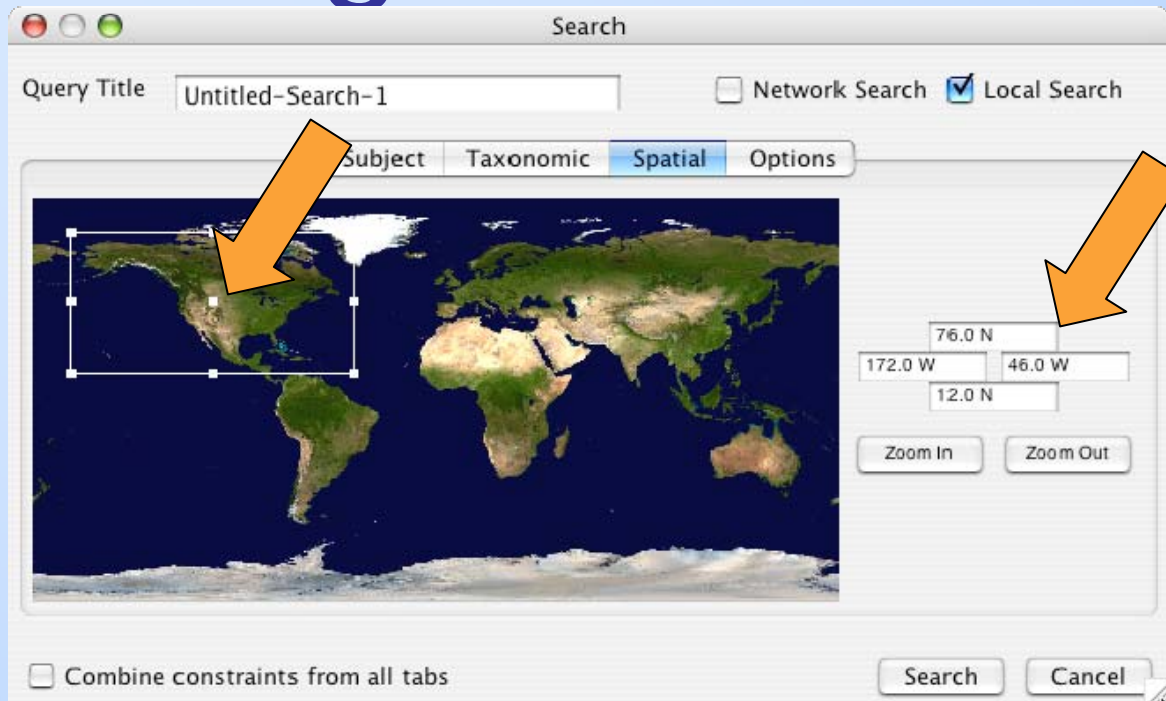
# Searching for data packages



- Select taxonomic rank and enter name
- Can search multiple taxa using “More”



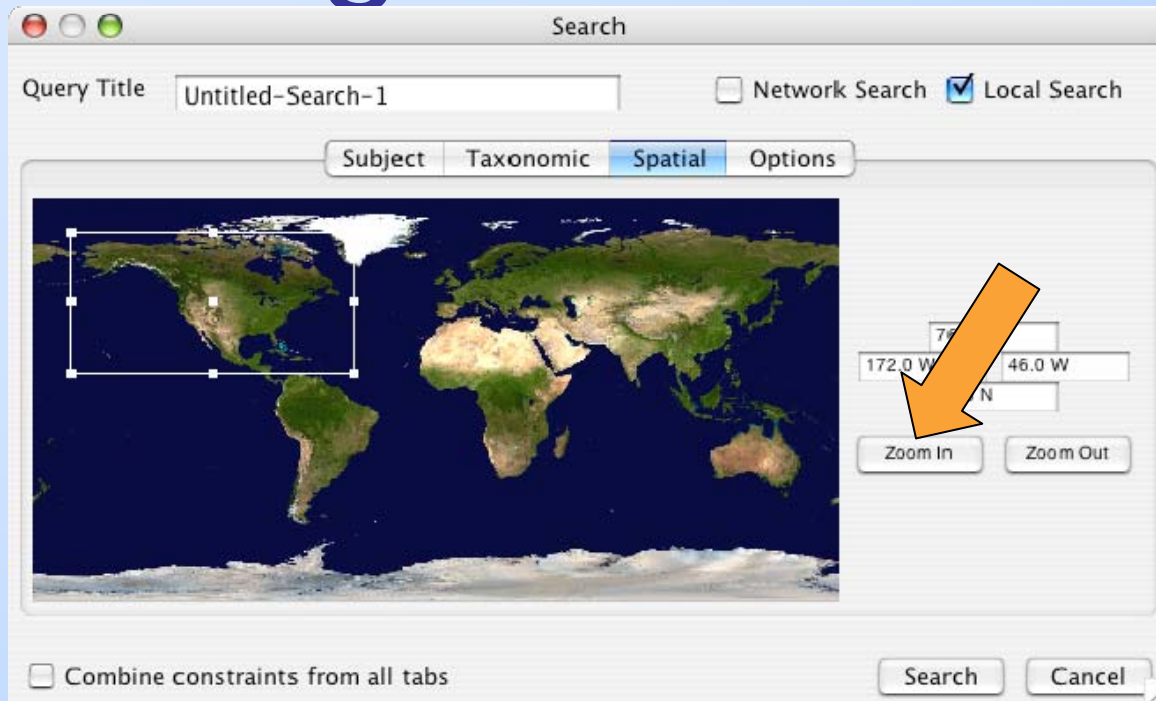
# Searching for data packages



- Select area of interest by moving box or enter coordinates by hand
- Zoom in to allow greater precision using the graphical box



# Searching for data packages



- Select area of interest by moving box or enter coordinates by hand
- Zoom in to allow greater precision using the graphical box


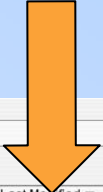




# Searching for data packages



- Data packages matching criteria are listed by last modification date
- Red icon indicates the package includes data table level EML
- Double click a package to open it



Title	Document ID	Surname	Keywords	Last Modified	Local	Net
Epimeroptera and Trichoptera in SWKS collection	obfs.3.2	manager wiso...	trichoptera epmeropt...	2004-10-18 13:33...		
Common Vascular Plants of the Chiricahua Mountains	obfs.400.1	manager Davi...	training flowering plan...	2004-10-18 13:33...		
Breeding Bird Survey	obfs.2.1	Marchand Bow...	Training breeding birds	2004-10-18 13:15...		
Kentucky Lake KY Chlorophyll Data	obfs2.445.7	Johnston White...	Kentucky Kentucky La...	2004-10-08 09:30...		
Kentucky Lake KY TN Dissolved Organic Carbon Data	kjohnsto.5.2	Marzolf Rice Jo...	Dissolved Organic Car...	2004-09-30 11:29...		
Fecal Coliform Data for Lower Cumberland, Tennessee, and...	obfs2.428.2	Johnston Johns...	Kentucky Non-point S...	2004-09-30 11:11...		
Teakettle Forest Small Mammal Data Set from 1999 to 2003	obfs.395.1	Meyer North K...	burning thinning Glau...	2004-03-18 14:04...		
Teakettle Experimental Forest Plant species list	obfs.384.2	Innes innes No...		2004-03-17 15:53...		
Marine Fishes and Larval Fishes	obfs2.453.1	Van Guelpen R...	marine fish ichthyology i...	2004-03-05 14:24...		
Marine Invertebrates	obfs2.448.1	Pohle Rose-Ta...	marine invertebrates f...	2004-03-05 14:24...		
Marine Algae	obfs2.436.1	Pohle Rose-Ta...	marine algae museum...	2004-03-05 14:24...		
Kentucky Lake KY Zooplankton Data	obfs2.467.1	White Rice Joh...	Kentucky Kentucky La...	2003-11-10 13:17...		
Kentucky Lake KY Water Chemistry Data	obfs2.465.1	Rice Johnston ...	Kentucky Kentucky La...	2003-11-10 13:00...		
Kentucky Lake KY Primary Production Data	obfs2.378.2	Marzolf Johnst...	Kentucky Kentucky La...	2003-11-06 14:55...		
Laguna Madre Estuary water column data on going from 4/...	obfs2.464.1	Montagna Sima...	Laguna Madre Baffin ...	2003-11-03 07:14...		
Brazos River Estuary benthic data from 10-18-00 to 7-30-...	obfs2.463.1	Montagna Sima...	Brazos River benthos ...	2003-11-03 07:08...		
Brazos River Estuary water column data from 10-8-00 to 7-...	obfs2.462.1	Montagna Sima...	Brazos River hyddrog...	2003-11-02 16:45...		

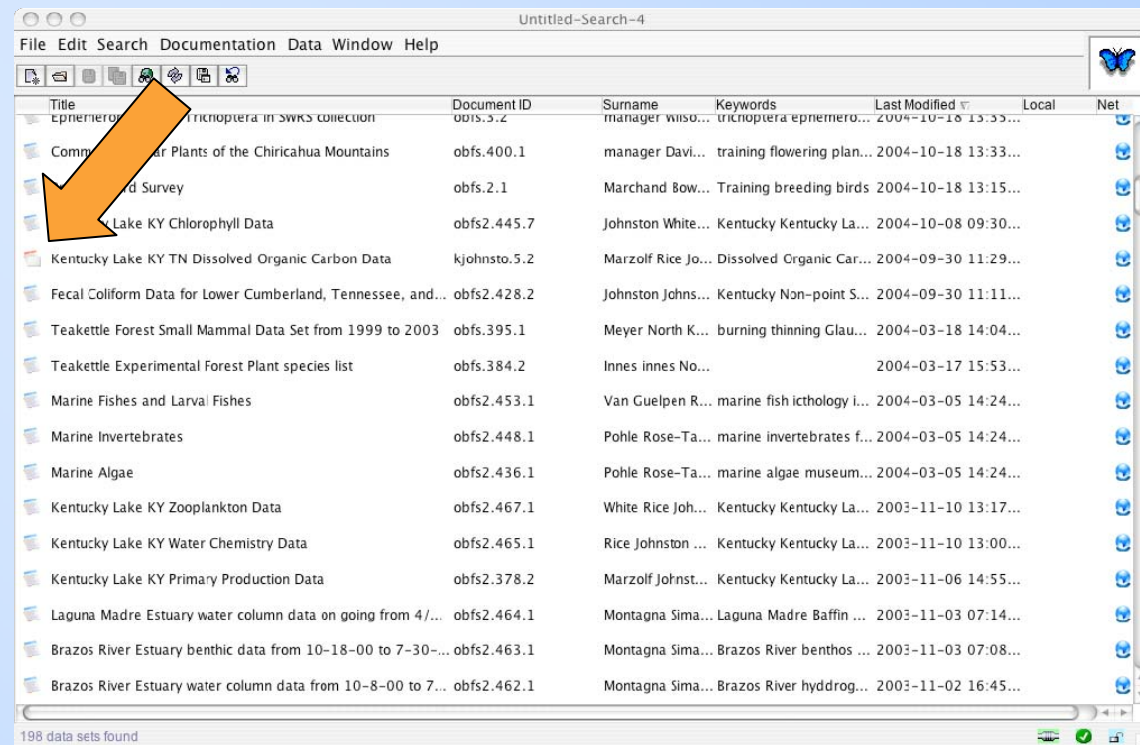
198 data sets found



# Searching for data packages



- Data packages matching criteria are listed by last modification date
- **Red icon indicates the package includes data table level EML**
- Double click a package to open it



Title	Document ID	Surname	Keywords	Last Modified	Local	Net
Epimeromorph Insecta in SWKS collection	obfs.3.2	manager wiso...	insecta epimerom...	2004-10-18 13:33...		
Common Plant Species of the Chiricahua Mountains	obfs.400.1	manager Davi...	training flowering plan...	2004-10-18 13:33...		
Field Survey	obfs.2.1	Marchand Bow...	Training breeding birds	2004-10-18 13:15...		
Kentucky Lake KY Chlorophyll Data	obfs2.445.7	Johnston White...	Kentucky Kentucky La...	2004-10-08 09:30...		
Kentucky Lake KY TN Dissolved Organic Carbon Data	kjohnsto.5.2	Marzolf Rice Jo...	Dissolved Organic Car...	2004-09-30 11:29...		
Fecal Coliform Data for Lower Cumberland, Tennessee, and...	obfs2.428.2	Johnston Johns...	Kentucky Non-point S...	2004-09-30 11:11...		
Teakettle Forest Small Mammal Data Set from 1999 to 2003	obfs.395.1	Meyer North K...	burning thinning Glau...	2004-03-18 14:04...		
Teakettle Experimental Forest Plant species list	obfs.384.2	Innes innes No...		2004-03-17 15:53...		
Marine Fishes and Larval Fishes	obfs2.453.1	Van Guelpen R...	marine fish ichthyology i...	2004-03-05 14:24...		
Marine Invertebrates	obfs2.448.1	Pohle Rose-Ta...	marine invertebrates f...	2004-03-05 14:24...		
Marine Algae	obfs2.436.1	Pohle Rose-Ta...	marine algae museum...	2004-03-05 14:24...		
Kentucky Lake KY Zooplankton Data	obfs2.467.1	White Rice Joh...	Kentucky Kentucky La...	2003-11-10 13:17...		
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198 data sets found



# Searching for data packages



- Data packages matching criteria are listed by last modification date
- Red icon indicates the package includes data table level EML
- **Double click a package to open it**

The screenshot shows the OBFS search interface. On the left, a list of data packages is displayed, sorted by last modification date. A red icon next to the 'Kentucky' package indicates it includes data table level EML. An orange arrow points to the 'Kentucky' package. The main window displays the details for the selected 'Kentucky' package, including a table of data and a metadata panel.

**Table 1**

Date	Count	Rank
2005-01...	47	1
2005-03...	15	3
2004-02...	2	2
1999-01...	10	1
2005-01...	3	1
2005-03...	1	3
2004-02...	23	2
1999-01...	105	1
2005-01...	4	1
2005-01...	3	1
2005-03...	1	3
2005-01...	3	2
2005-01...	1	3
2005-01...	3	2
2005-03...	1	3
2005-03...	1	3
2005-01...	3	1
2005-01...	4	1
2005-01...	3	2

**Entity/Attribute**

Column Name	Date
Column Label <td></td>	
Definition <td>The date of collection</td>	The date of collection
Type of Value <td></td>	
Measurement Type <td>datetime</td>	datetime
Measurement Domain <td>YYYY-MM-DD</td>	YYYY-MM-DD
Measurement Precision <td></td>	
Missing Value Code <td></td>	
Accuracy Report <td></td>	
Accuracy Assessment <td></td>	
Coverage <td></td>	
Method <td></td>	