

**Tutorial #3**

# RNASeq Data Processing using Galaxy Module



## EcoToxXplorer

Visual analytics for comprehensive toxicogenomics profiling

EcoToxChip

Gene Expression

Dose-response

Select "Raw RNA-seq Data"

Raw RNA-seq Data

This opens a new window to the EcoToxXplorer-hosted Galaxy server.

## FEATURES



### ECOTOXCHIP ANALYSIS

Directly analyze EcoToxChip results here to guide decision-making for several ecological species and use cases.



### INTERACTIVE EXPLORATION

Generate well-known statistical plots (e.g., volcano plots or heatmaps) or use novel tools (e.g., EcoToxBMD, EcoToxMods) to analyze toxicogenomics data.



### SEVERAL DATA INPUTS

Start analysis using many types of inputs including RNAseq, microarray, or qPCR.



### RAW RNA-seq DATA

Process raw RNA-seq files using our customized Galaxy server.



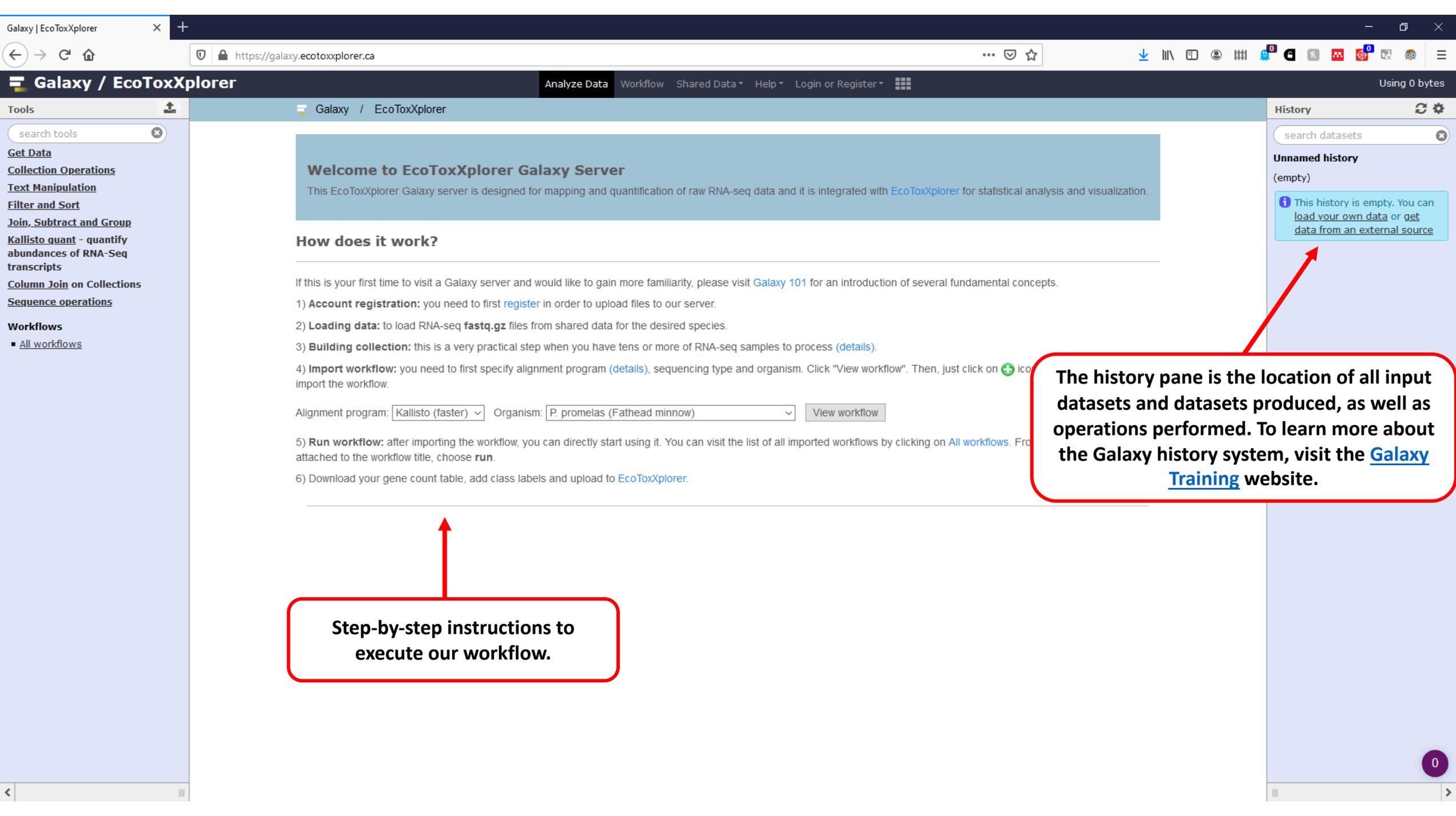
### REPORT GENERATION

Summarize all executed analysis steps into a comprehensive report for proper documentation.



### PROJECT MANAGEMENT

Create a user account to store your data and results, as well as resume your analysis.



**Welcome to EcoToxXplorer Galaxy Server**  
This EcoToxXplorer Galaxy server is designed for mapping and quantification of raw RNA-seq data and it is integrated with [EcoToxXplorer](#) for statistical analysis and visualization.

### How does it work?

If this is your first time to visit a Galaxy server and would like to gain more familiarity, please visit [Galaxy 101](#) for an introduction of several fundamental concepts.

- 1) **Account registration:** you need to first [register](#) in order to upload files to our server.
- 2) **Loading data:** to load RNA-seq [fastq.gz](#) files from shared data for the desired species.
- 3) **Building collection:** this is a very practical step when you have tens or more of RNA-seq samples to process ([details](#)).
- 4) **Import workflow:** you need to first specify alignment program ([details](#)), sequencing type and organism. Click "View workflow". Then, just click on [+](#) icon to import the workflow.  
Alignment program:  Organism:
- 5) **Run workflow:** after importing the workflow, you can directly start using it. You can visit the list of all imported workflows by clicking on [All workflows](#). From the list, click on the workflow title, choose **run**.
- 6) Download your gene count table, add class labels and upload to [EcoToxXplorer](#).

History

search datasets

**Unnamed history**  
(empty)

**i** This history is empty. You can [load your own data](#) or [get data from an external source](#)

**Step-by-step instructions to execute our workflow.**

**The history pane is the location of all input datasets and datasets produced, as well as operations performed. To learn more about the Galaxy history system, visit the [Galaxy Training](#) website.**

Tools

search tools

**Get Data**

**Collection Operations**

**Text Manipulation**

**Filter and Sort**

**Join, Subtract and Group**

**Kallisto quant** - quantify abundances of RNA-Seq transcripts

**Column Join** on Collections

**Sequence operations**

**Workflows**

- All workflows

Create account

**Email address:**

**Password:**

Strength

**Confirm password:**

**Public name:**

Your public name is an identifier that will be used to generate addresses for information you share publicly. Public names must be at least three characters in length and contain only lower-case letters, numbers, dots, underscores, and dashes ('.', '\_', '-').

**Subscribe to mailing list:**

 See [all Galaxy project mailing lists](#).

Submit

Login  
Register

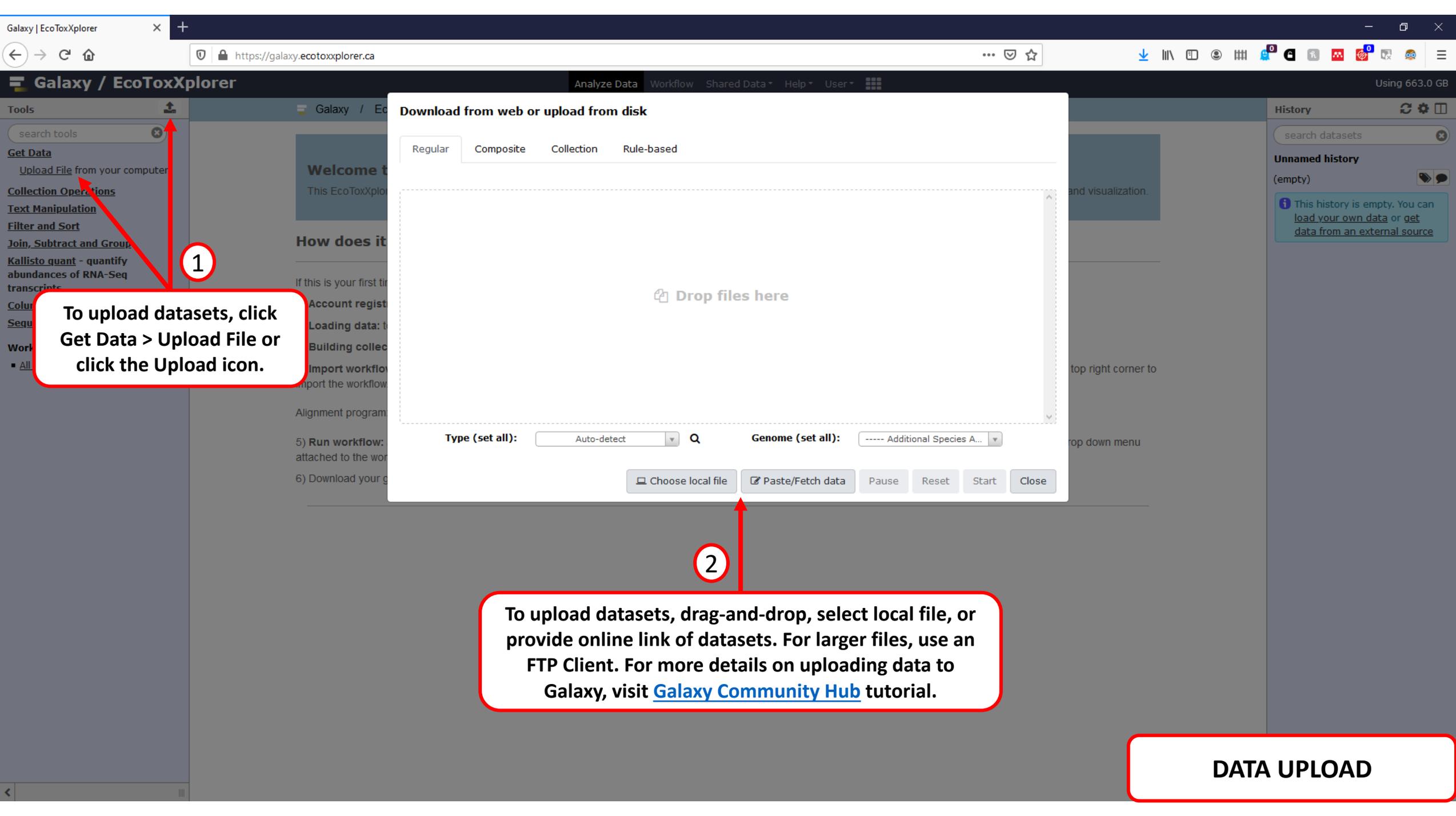
Click here to register or to log-in for subsequent visits.

History

search datasets

**Unnamed history**  
(empty)

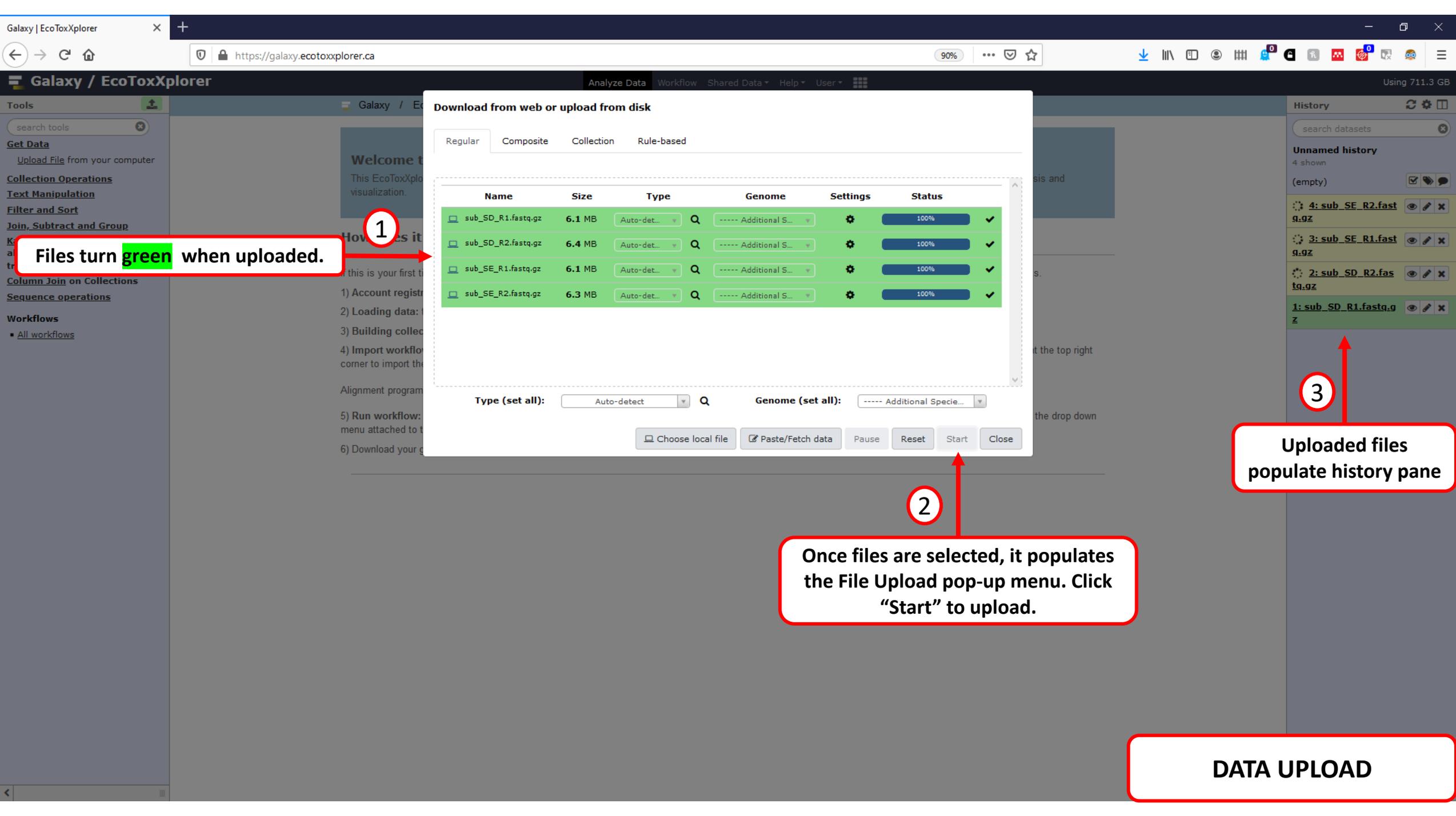
This history is empty. You can [load your own data](#) or [get data from an external source](#)



1  
To upload datasets, click Get Data > Upload File or click the Upload icon.

2  
To upload datasets, drag-and-drop, select local file, or provide online link of datasets. For larger files, use an FTP Client. For more details on uploading data to Galaxy, visit [Galaxy Community Hub](#) tutorial.

DATA UPLOAD



Files turn green when uploaded.

1

2

Once files are selected, it populates the File Upload pop-up menu. Click "Start" to upload.

3

Uploaded files populate history pane

DATA UPLOAD

Download from web or upload from disk

Regular Composite Collection Rule-based

Name	Size	Type	Genome	Settings	Status
sub_SD_R1.fastq.gz	6.1 MB	Auto-det...	----- Additional S...	⚙️	100% ✓
sub_SD_R2.fastq.gz	6.4 MB	Auto-det...	----- Additional S...	⚙️	100% ✓
sub_SE_R1.fastq.gz	6.1 MB	Auto-det...	----- Additional S...	⚙️	100% ✓
sub_SE_R2.fastq.gz	6.3 MB	Auto-det...	----- Additional S...	⚙️	100% ✓

Type (set all): Auto-detect Genome (set all): ----- Additional Specie...

Choose local file Paste/Fetch data Pause Reset Start Close

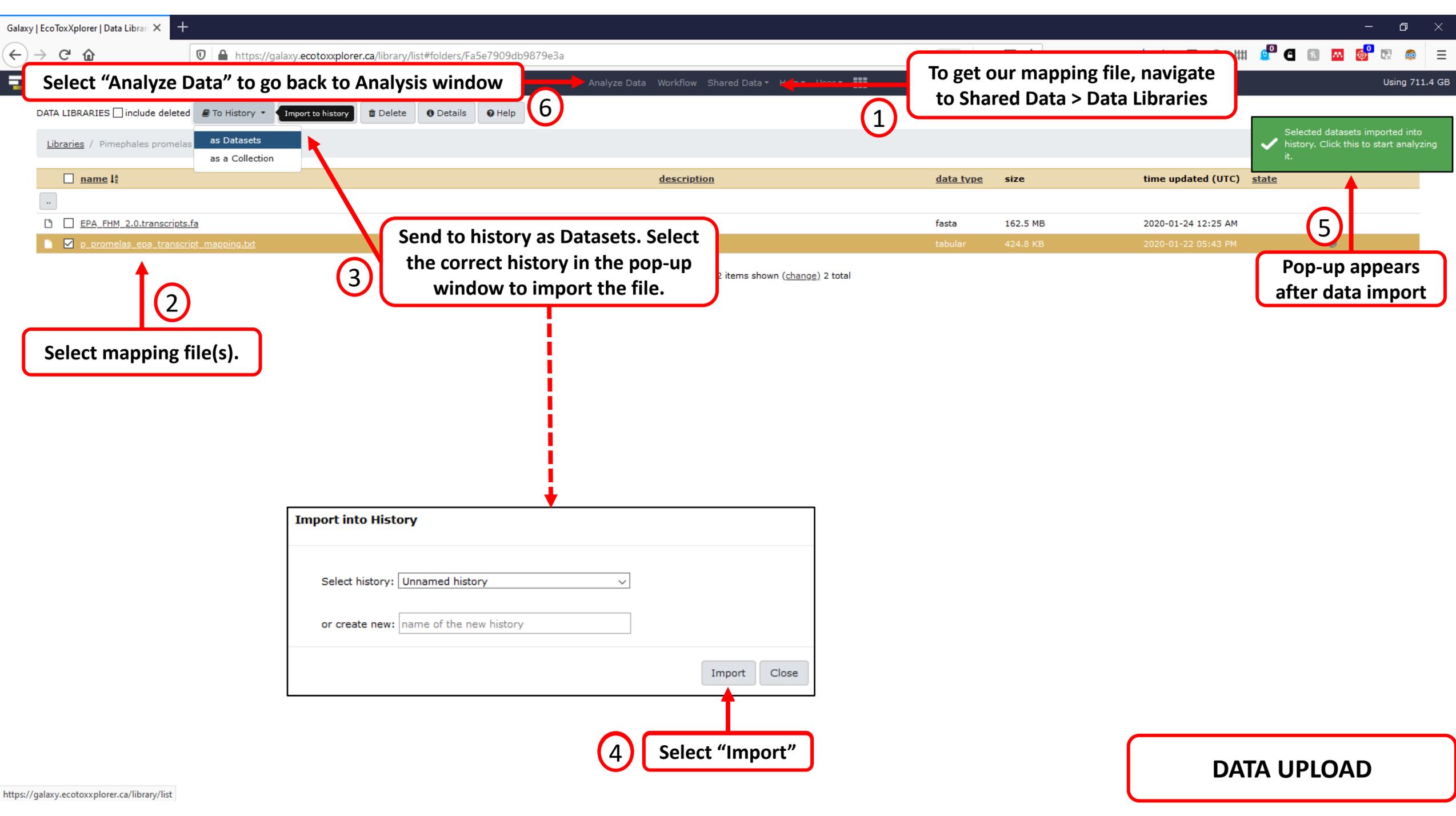
History

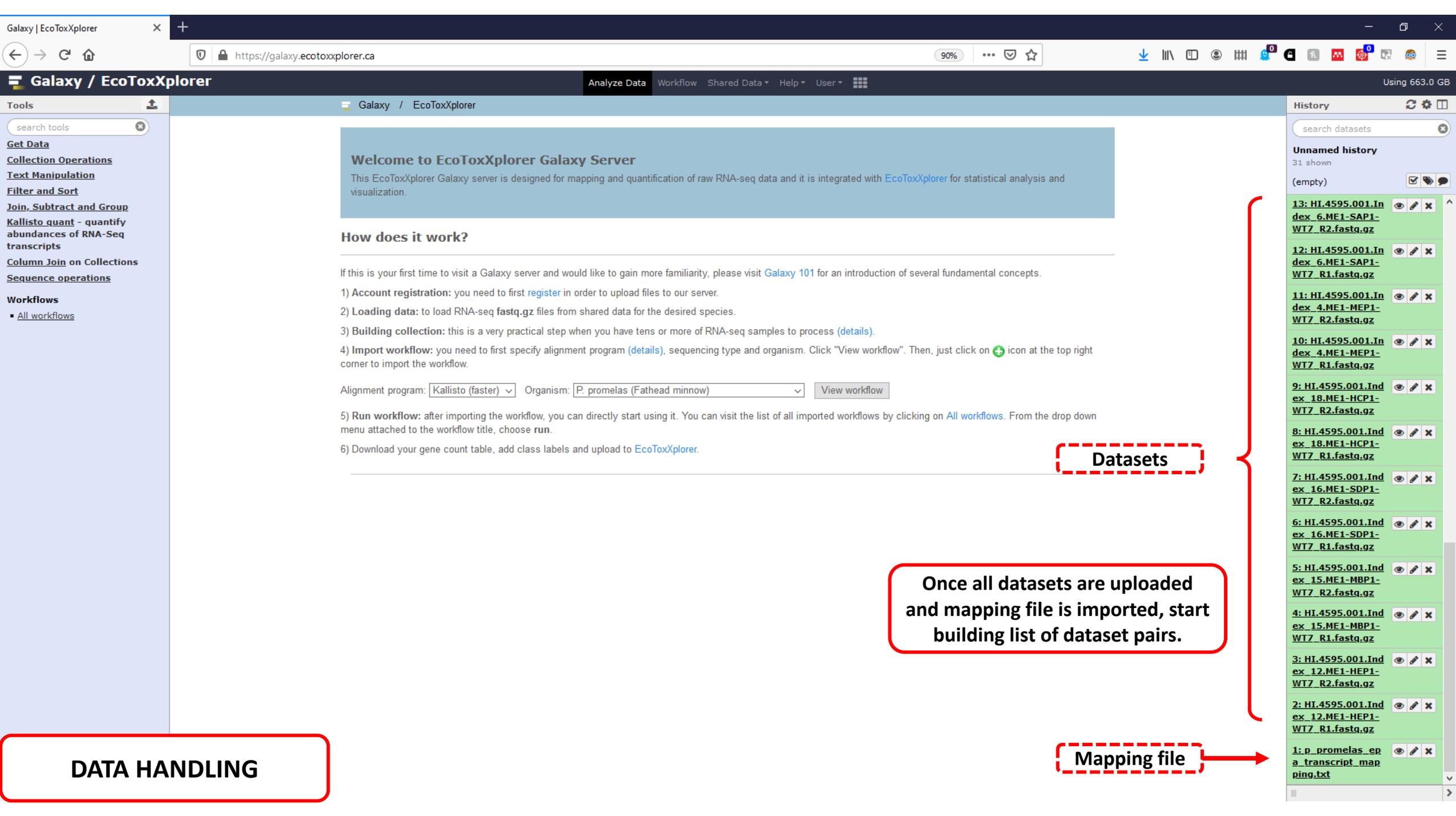
search datasets

Unnamed history  
4 shown

(empty)

- 4: sub\_SE\_R2.fastq.gz
- 3: sub\_SE\_R1.fastq.gz
- 2: sub\_SD\_R2.fastq.gz
- 1: sub\_SD\_R1.fastq.gz





Tools

search tools

- Get Data
- Collection Operations
- Text Manipulation
- Filter and Sort
- Join, Subtract and Group
- Kallisto quant - quantify abundances of RNA-Seq transcripts
- Column Join on Collections
- Sequence operations

Workflows

- All workflows

### Welcome to EcoToxXplorer Galaxy Server

This EcoToxXplorer Galaxy server is designed for mapping and quantification of raw RNA-seq data and it is integrated with EcoToxXplorer for statistical analysis and visualization.

### How does it work?

If this is your first time to visit a Galaxy server and would like to gain more familiarity, please visit [Galaxy 101](#) for an introduction of several fundamental concepts.

- 1) **Account registration:** you need to first [register](#) in order to upload files to our server.
  - 2) **Loading data:** to load RNA-seq `fastq.gz` files from shared data for the desired species.
  - 3) **Building collection:** this is a very practical step when you have tens or more of RNA-seq samples to process ([details](#)).
  - 4) **Import workflow:** you need to first specify alignment program ([details](#)), sequencing type and organism. Click "View workflow". Then, just click on icon at the top right corner to import the workflow.
- Alignment program:  Organism:
- 5) **Run workflow:** after importing the workflow, you can directly start using it. You can visit the list of all imported workflows by clicking on [All workflows](#). From the drop down menu attached to the workflow title, choose `run`.
  - 6) Download your gene count table, add class labels and upload to EcoToxXplorer.

**Datasets**

**Once all datasets are uploaded and mapping file is imported, start building list of dataset pairs.**

**Mapping file**

**DATA HANDLING**

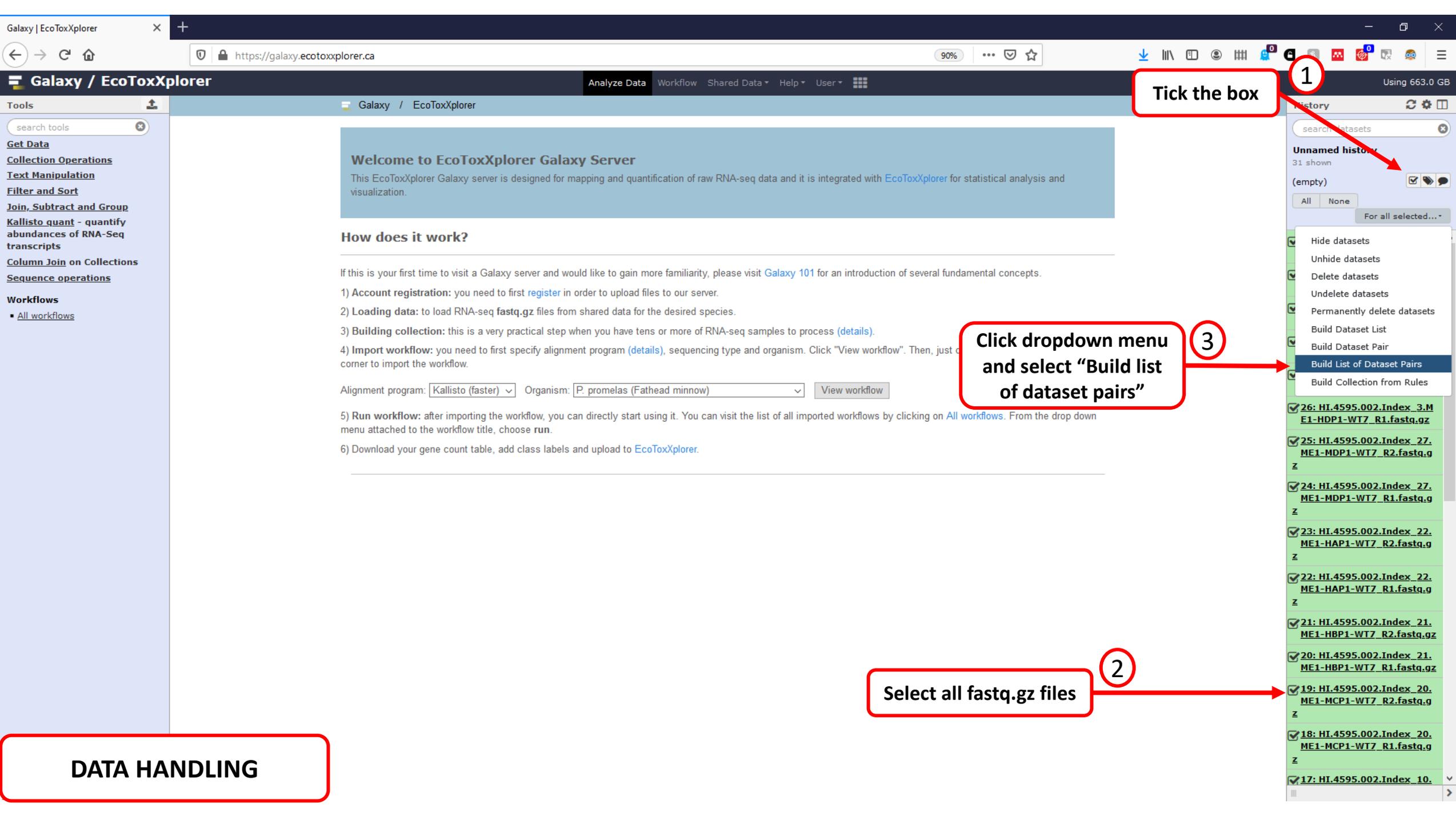
History

search datasets

Unnamed history

31 shown (empty)

- 13: HI.4595.001.Index\_6.ME1-SAP1-WT7\_R2.fastq.gz
- 12: HI.4595.001.Index\_6.ME1-SAP1-WT7\_R1.fastq.gz
- 11: HI.4595.001.Index\_4.ME1-MEP1-WT7\_R2.fastq.gz
- 10: HI.4595.001.Index\_4.ME1-MEP1-WT7\_R1.fastq.gz
- 9: HI.4595.001.Index\_18.ME1-HCP1-WT7\_R2.fastq.gz
- 8: HI.4595.001.Index\_18.ME1-HCP1-WT7\_R1.fastq.gz
- 7: HI.4595.001.Index\_16.ME1-SDP1-WT7\_R2.fastq.gz
- 6: HI.4595.001.Index\_16.ME1-SDP1-WT7\_R1.fastq.gz
- 5: HI.4595.001.Index\_15.ME1-MBP1-WT7\_R2.fastq.gz
- 4: HI.4595.001.Index\_15.ME1-MBP1-WT7\_R1.fastq.gz
- 3: HI.4595.001.Index\_12.ME1-HEP1-WT7\_R2.fastq.gz
- 2: HI.4595.001.Index\_12.ME1-HEP1-WT7\_R1.fastq.gz
- 1: p\_promelas\_epa\_transcript\_mapping.txt



Tools

search tools

Get Data

Collection Operations

Text Manipulation

Filter and Sort

Join, Subtract and Group

**Kallisto quant** - quantify abundances of RNA-Seq transcripts

Column Join on Collections

Sequence operations

Workflows

All workflows

### Welcome to EcoToxXplorer Galaxy Server

This EcoToxXplorer Galaxy server is designed for mapping and quantification of raw RNA-seq data and it is integrated with [EcoToxXplorer](#) for statistical analysis and visualization.

### How does it work?

If this is your first time to visit a Galaxy server and would like to gain more familiarity, please visit [Galaxy 101](#) for an introduction of several fundamental concepts.

- 1) **Account registration:** you need to first [register](#) in order to upload files to our server.
- 2) **Loading data:** to load RNA-seq **fastq.gz** files from shared data for the desired species.
- 3) **Building collection:** this is a very practical step when you have tens or more of RNA-seq samples to process ([details](#)).
- 4) **Import workflow:** you need to first specify alignment program ([details](#)), sequencing type and organism. Click "View workflow". Then, just click the top left corner to import the workflow.

Alignment program:  Organism:

- 5) **Run workflow:** after importing the workflow, you can directly start using it. You can visit the list of all imported workflows by clicking on [All workflows](#). From the drop down menu attached to the workflow title, choose **run**.
- 6) Download your gene count table, add class labels and upload to [EcoToxXplorer](#).

1 Tick the box

3 Click dropdown menu and select "Build list of dataset pairs"

2 Select all fastq.gz files

DATA HANDLING

History

search datasets

Unnamed history

31 shown

(empty)

All None

For all selected...

- Hide datasets
- Unhide datasets
- Delete datasets
- Undelete datasets
- Permanently delete datasets
- Build Dataset List
- Build Dataset Pair
- Build List of Dataset Pairs**
- Build Collection from Rules

26: HI.4595.002.Index\_3.M E1-HDP1-WT7\_R1.fastq.gz

25: HI.4595.002.Index\_27. ME1-MDP1-WT7\_R2.fastq.gz

24: HI.4595.002.Index\_27. ME1-MDP1-WT7\_R1.fastq.gz

23: HI.4595.002.Index\_22. ME1-HAP1-WT7\_R2.fastq.gz

22: HI.4595.002.Index\_22. ME1-HAP1-WT7\_R1.fastq.gz

21: HI.4595.002.Index\_21. ME1-HBP1-WT7\_R2.fastq.gz

20: HI.4595.002.Index\_21. ME1-HBP1-WT7\_R1.fastq.gz

19: HI.4595.002.Index\_20. ME1-MCP1-WT7\_R2.fastq.gz

18: HI.4595.002.Index\_20. ME1-MCP1-WT7\_R1.fastq.gz

17: HI.4595.002.Index\_10.

Create a collection of paired datasets

2 pairs created

8 unpaired forward - (8 filtered out) Choose filters Clear filters Auto pair 8 unpaired reverse - (8 filtered out)

HI.4595.001.Index_12.ME1-HEP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_12.ME1-HEP1-WT7_R2.fastq.gz
HI.4595.001.Index_15.ME1-MBP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_15.ME1-MBP1-WT7_R2.fastq.gz
HI.4595.001.Index_16.ME1-SDP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_16.ME1-SDP1-WT7_R2.fastq.gz
HI.4595.001.Index_18.ME1-HCP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_18.ME1-HCP1-WT7_R2.fastq.gz
HI.4595.002.Index_20.ME1-MCP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_20.ME1-MCP1-WT7_R2.fastq.gz
HI.4595.002.Index_21.ME1-HBP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_21.ME1-HBP1-WT7_R2.fastq.gz
HI.4595.002.Index_22.ME1-HAP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_22.ME1-HAP1-WT7_R2.fastq.gz

7 paired Unpair all

HI.4595.002.Index_1.ME1-SBP1	HI.4595.002.Index_1.ME1-SBP1	← HI.4595.002.Index_1.ME1-SBP1
HI.4595.003.Index_2.ME1-SCP1	HI.4595.003.Index_2.ME1-SCP1	← HI.4595.003.Index_2.ME1-SCP1
HI.4595.002.Index_3.ME1-HDP1	HI.4595.002.Index_3.ME1-HDP1	← HI.4595.002.Index_3.ME1-HDP1
HI.4595.001.Index_4.ME1-MEP1	HI.4595.001.Index_4.ME1-MEP1	← HI.4595.001.Index_4.ME1-MEP1
HI.4595.003.Index_6.ME1-MAP1	HI.4595.003.Index_6.ME1-MAP1	← HI.4595.003.Index_6.ME1-MAP1
HI.4595.001.Index_6.ME1-SAP1	HI.4595.001.Index_6.ME1-SAP1	← HI.4595.001.Index_6.ME1-SAP1
HI.4595.002.Index_10.ME1-SEP1	HI.4595.002.Index_10.ME1-SEP1	← HI.4595.002.Index_10.ME1-SEP1

Remove file extensions from pair names?  Hide original elements?

Name:

Cancel Create list

Double check FORWARD and REVERSE pairs and click "Pair these datasets"

1 Type unique identifier for FORWARD reads

2 Type unique identifier for REVERSE reads

4 Paired datasets appear here

DATA HANDLING

History

search datasets

Unnamed history

31 shown

- 31: HI.4595.003.Index\_6.ME1-MAP1-WT7\_R2.fastq.gz
- 30: HI.4595.003.Index\_6.ME1-MAP1-WT7\_R1.fastq.gz
- 29: HI.4595.003.Index\_2.ME1-SCP1-WT7\_R2.fastq.gz
- 28: HI.4595.003.Index\_2.ME1-SCP1-WT7\_R1.fastq.gz
- 27: HI.4595.002.Index\_3.ME1-HDP1-WT7\_R2.fastq.gz
- 26: HI.4595.002.Index\_3.ME1-HDP1-WT7\_R1.fastq.gz
- 25: HI.4595.002.Index\_27.ME1-MDP1-WT7\_R2.fastq.gz
- 24: HI.4595.002.Index\_27.ME1-MDP1-WT7\_R1.fastq.gz
- 23: HI.4595.002.Index\_22.ME1-HAP1-WT7\_R2.fastq.gz
- 22: HI.4595.002.Index\_22.ME1-HAP1-WT7\_R1.fastq.gz
- 21: HI.4595.002.Index\_21.ME1-HBP1-WT7\_R2.fastq.gz
- 20: HI.4595.002.Index\_21.ME1-HBP1-WT7\_R1.fastq.gz
- 19: HI.4595.002.Index\_20.ME1-MCP1-WT7\_R2.fastq.gz
- 18: HI.4595.002.Index\_20.ME1-MCP1-WT7\_R1.fastq.gz
- 17: HI.4595.002.Index\_10.ME1-SEP1-WT7\_R2.fastq.gz

Create a collection of pairs

2 pairs created

8 unpaired forward - (8 filtered out) R1

8 unpaired reverse - (8 filtered out) R2

HI.4595.001.Index_12.ME1-HEP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_12.ME1-HEP1-WT7_R2.fastq.gz
HI.4595.001.Index_15.ME1-MBP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_15.ME1-MBP1-WT7_R2.fastq.gz
HI.4595.001.Index_16.ME1-SDP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_16.ME1-SDP1-WT7_R2.fastq.gz
HI.4595.001.Index_18.ME1-HCP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.001.Index_18.ME1-HCP1-WT7_R2.fastq.gz
HI.4595.002.Index_20.ME1-MCP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_20.ME1-MCP1-WT7_R2.fastq.gz
HI.4595.002.Index_21.ME1-HBP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_21.ME1-HBP1-WT7_R2.fastq.gz
HI.4595.002.Index_22.ME1-HAP1-WT7_R1.fastq.gz	Pair these datasets	HI.4595.002.Index_22.ME1-HAP1-WT7_R2.fastq.gz

7 paired Unpair all

HI.4595.002.Index_1.ME1-SBP1-	HI.4595.002.Index_1.ME1-SBP1-	← HI.4595.002.Index_1.ME1-SBP1-
HI.4595.003.Index_2.ME1-SCP1-	HI.4595.003.Index_2.ME1-SCP1-	← HI.4595.003.Index_2.ME1-SCP1-
HI.4595.002.Index_3.ME1-HDP1-	HI.4595.002.Index_3.ME1-HDP1-	← HI.4595.002.Index_3.ME1-HDP1-
HI.4595.001.Index_4.ME1-MEP1-	HI.4595.001.Index_4.ME1-MEP1-	← HI.4595.001.Index_4.ME1-MEP1-
HI.4595.003.Index_6.ME1-MAP1-	HI.4595.003.Index_6.ME1-MAP1-	← HI.4595.003.Index_6.ME1-MAP1-
HI.4595.001.Index_6.ME1-SAP1-	HI.4595.001.Index_6.ME1-SAP1-	← HI.4595.001.Index_6.ME1-SAP1-
HI.4595.002.Index_10.ME1-SEP1-	HI.4595.002.Index_10.ME1-	← HI.4595.002.Index_10.ME1-SEP1-

Remove file extensions from pair names?  Hide original elements?

Name: Enter a name for your new list

Cancel Create list

Enter new name for the pair.  
This name will be the label of  
the sample in the final output

Enter a new name for the pair.

OK Cancel

To re-label paired  
datasets, click here

DATA HANDLING

Welcome to this EcoToxXplorer visualization.

How does it work?

If this is your first time using EcoToxXplorer, you will need to follow the following steps:

- 1) Account registration
- 2) Loading data: upload your data to the Galaxy platform
- 3) Building collections: create a collection of paired datasets
- 4) Import workflow: import the workflow from the Galaxy library
- 5) Run workflow: run the workflow on your data
- 6) Download your results: download the results of the workflow

### Create a collection of paired datasets

2 pairs created

0 unpaired forward - (0 filtered out) Choose filters Clear filters 0 unpaired reverse - (0 filtered out)

R1  R2

(no remaining unpaired datasets)

15 paired Unpair all

HI.4595.001.Index_15.ME1-MBP1-	ME1-	← HI.4595.001.Index_15.ME1-MBP1-	<input type="checkbox"/>
HI.4595.001.Index_16.ME1-SDP1-	ME1-	← HI.4595.001.Index_16.ME1-SDP1-	<input type="checkbox"/>
HI.4595.001.Index_18.ME1-HCP1-	ME1-	← HI.4595.001.Index_18.ME1-HCP1-	<input type="checkbox"/>
HI.4595.002.Index_20.ME1-MCP1-	ME1-	← HI.4595.002.Index_20.ME1-MCP1-	<input type="checkbox"/>
HI.4595.002.Index_21.ME1-HBP1-	ME1-	← HI.4595.002.Index_21.ME1-HBP1-	<input type="checkbox"/>
HI.4595.002.Index_22.ME1-HAP1-	ME1-	← HI.4595.002.Index_22.ME1-HAP1-	<input type="checkbox"/>
HI.4595.002.Index_27.ME1-MDP1-	ME1-	← HI.4595.002.Index_27.ME1-MDP1-	<input type="checkbox"/>

Remove file extensions from pair names?  Hide original elements?

Name:

**Tick box to hide individual datasets used in the collection.**

2

**Type name for the collection of dataset pairs.**

1

**Click "Create List"**

3

**DATA HANDLING**

### History

search datasets

Unnamed history  
31 shown

(empty)

All None For all selected...

- 31: HI.4595.003.Index\_6.ME1-MAP1-WT7\_R2.fastq.gz
- 30: HI.4595.003.Index\_6.ME1-MAP1-WT7\_R1.fastq.gz
- 29: HI.4595.003.Index\_2.ME1-SCP1-WT7\_R2.fastq.gz
- 28: HI.4595.003.Index\_2.ME1-SCP1-WT7\_R1.fastq.gz
- 27: HI.4595.002.Index\_3.ME1-HDP1-WT7\_R2.fastq.gz
- 26: HI.4595.002.Index\_3.ME1-HDP1-WT7\_R1.fastq.gz
- 25: HI.4595.002.Index\_27.ME1-MDP1-WT7\_R2.fastq.gz
- 24: HI.4595.002.Index\_27.ME1-MDP1-WT7\_R1.fastq.gz
- 23: HI.4595.002.Index\_22.ME1-HAP1-WT7\_R2.fastq.gz
- 22: HI.4595.002.Index\_22.ME1-HAP1-WT7\_R1.fastq.gz
- 21: HI.4595.002.Index\_21.ME1-HBP1-WT7\_R2.fastq.gz
- 20: HI.4595.002.Index\_21.ME1-HBP1-WT7\_R1.fastq.gz
- 19: HI.4595.002.Index\_20.ME1-MCP1-WT7\_R2.fastq.gz
- 18: HI.4595.002.Index\_20.ME1-MCP1-WT7\_R1.fastq.gz
- 17: HI.4595.002.Index\_10.ME1-MCP1-WT7\_R2.fastq.gz

Tools

search tools

**Get Data**

**Collection Operations**

**Text Manipulation**

**Filter and Sort**

**Join, Subtract and Group**

**Kallisto quant** - quantify abundances of RNA-Seq transcripts

**Column Join** on Collections

**Sequence operations**

**Workflows**

- All workflows

**Welcome to EcoToxXplorer Galaxy Server**

This EcoToxXplorer Galaxy server is designed for mapping and quantification of raw RNA-seq data and it is integrated with [EcoToxXplorer](#) for statistical analysis and visualization.

### How does it work?

- If this is your first time to visit a Galaxy server and would like to gain more familiarity, please visit [Galaxy 101](#) for an introduction of several fundamental concepts.
- 1) **Account registration:** you need to first [register](#) in order to upload files to our server.
  - 2) **Loading data:** to load RNA-seq **fastq.gz** files from shared data for the desired species.
  - 3) **Building collection:** this is a very practical step when you have tens or more of RNA-seq samples to process ([details](#)).
  - 4) **Import workflow:** you need to first specify alignment program ([details](#)), sequencing type and organism. Click "View workflow". Then, just click on  icon at the top right corner to import the workflow.
- Alignment program:  Organism:
- 5) **Run workflow:** after importing the workflow, you can directly start using it. You can visit the list of all imported workflows by clicking on [All workflows](#). From the drop down menu attached to the workflow title, choose **run**.
  - 6) Download your gene count table, add class labels and upload to [EcoToxXplorer](#).

List of dataset pairs

Mapping file

History

search datasets

**Unnamed history**

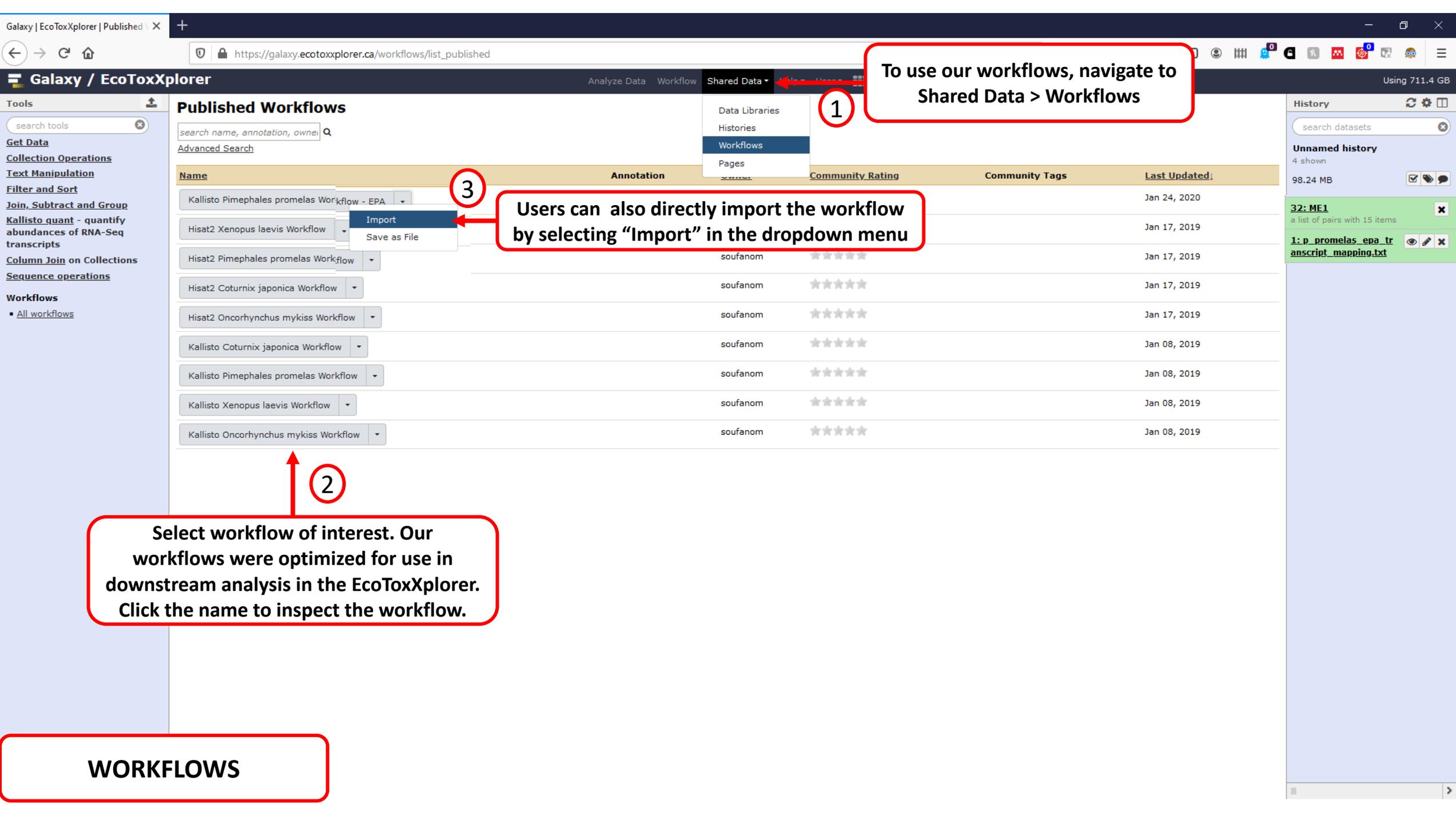
2 show Operations on multiple datasets

(empty)

**32: ME1** a list of pairs with 15 items

**1: p\_promelas\_epa\_transcript\_mapping.txt**

**DATA HANDLING**



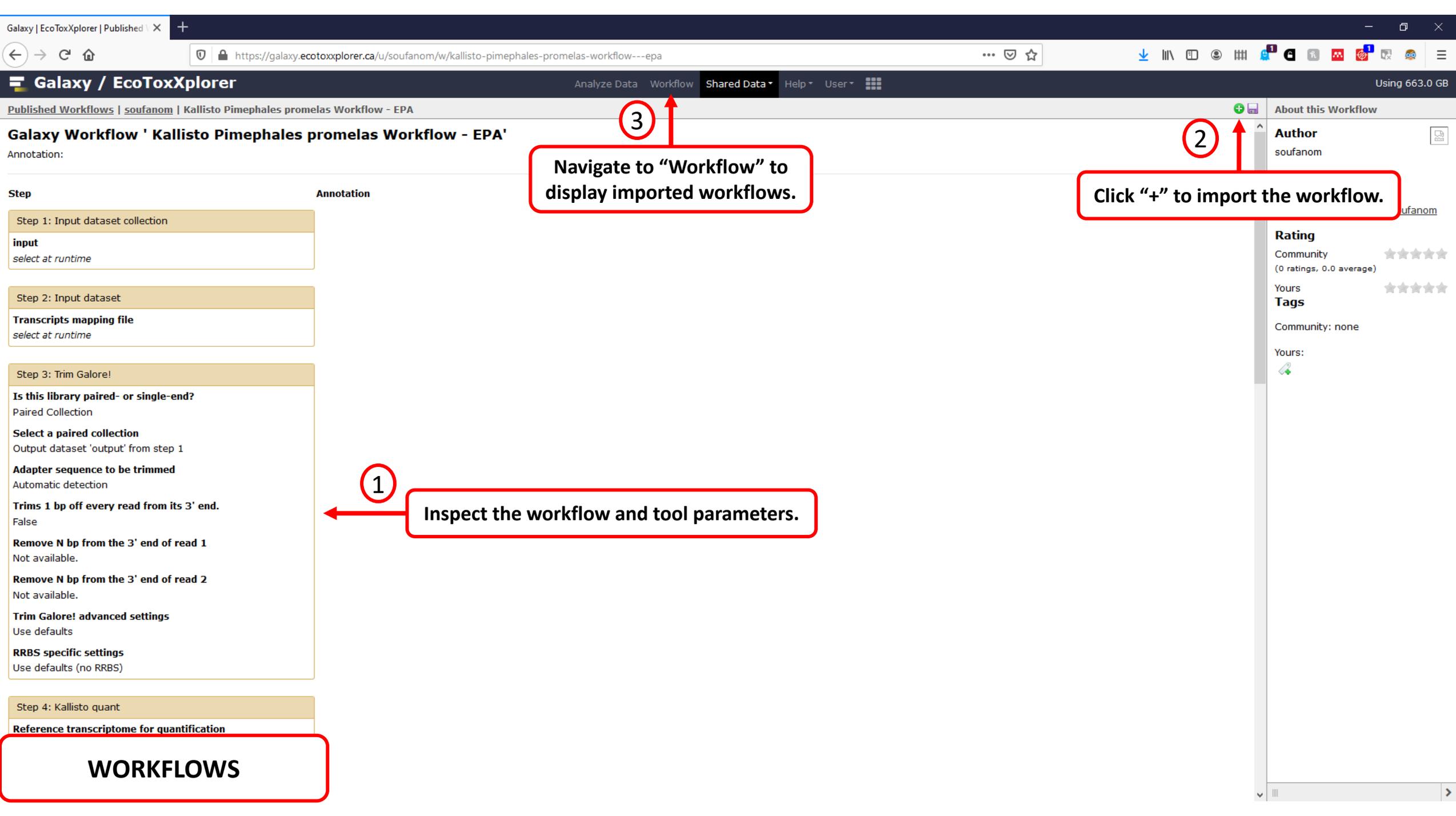
To use our workflows, navigate to Shared Data > Workflows

Users can also directly import the workflow by selecting "Import" in the dropdown menu

Select workflow of interest. Our workflows were optimized for use in downstream analysis in the EcoToxXplorer. Click the name to inspect the workflow.

**WORKFLOWS**

Name	Annotation	Community Rating	Community Tags	Last Updated
Kallisto Pimephales promelas Workflow - EPA				Jan 24, 2020
Hisat2 Xenopus laevis Workflow				Jan 17, 2019
Hisat2 Pimephales promelas Workflow	soufanom	★★★★★		Jan 17, 2019
Hisat2 Coturnix japonica Workflow	soufanom	★★★★★		Jan 17, 2019
Hisat2 Oncorhynchus mykiss Workflow	soufanom	★★★★★		Jan 17, 2019
Kallisto Coturnix japonica Workflow	soufanom	★★★★★		Jan 08, 2019
Kallisto Pimephales promelas Workflow	soufanom	★★★★★		Jan 08, 2019
Kallisto Xenopus laevis Workflow	soufanom	★★★★★		Jan 08, 2019
Kallisto Oncorhynchus mykiss Workflow	soufanom	★★★★★		Jan 08, 2019



3  
Navigate to "Workflow" to display imported workflows.

2  
Click "+" to import the workflow.

1  
Inspect the workflow and tool parameters.

WORKFLOWS

Tools

search tools

- Get Data
- Collection Operations
- Text Manipulation
- Filter and Sort
- Join, Subtract and Group
- Kallisto quant - quantify abundances of RNA-Seq transcripts
- Column Join on Collections
- Sequence operations
- Workflows
  - All workflows

Your workflows

search for workflow... +

History

search datasets

Unnamed history

2 shown, 1 deleted, 110 hidden

48.33 GB

32: ME1

a list of pairs with 15 items

1: p\_promelas\_epa\_tr

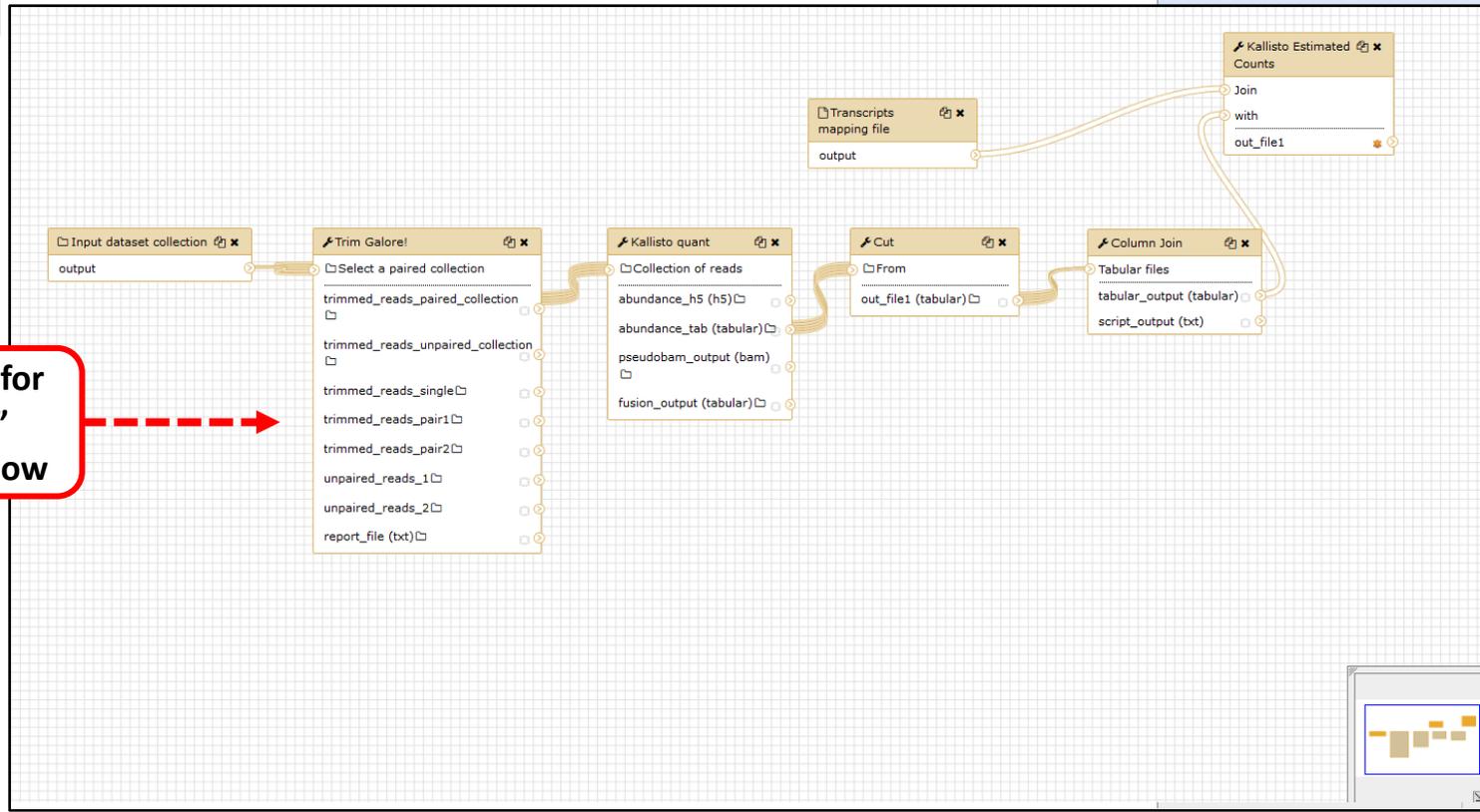
anscript\_mapping.txt

Name	Tags	Owner	# of Steps	Published	Show in tools panel
imported: Kallisto Pimephales promelas Workflow - EPA		You	7	No	<input type="checkbox"/>
imported: Kallisto Pimephales promelas Workflow				No	<input type="checkbox"/>
imported: Kallisto Oncorhynchus mykiss Workflow				No	<input type="checkbox"/>
imported: Kallisto Pimephales promelas Workflow		You	7	No	<input type="checkbox"/>
imported: Hisat2 Oncorhynchus mykiss Workflow		You	6	No	<input type="checkbox"/>

- Edit
- Run
- Share
- Download
- Copy
- Rename
- View
- Delete

Click "Run" to use selected workflow.

Click dropdown menu for more options. "Edit" displays the full workflow



WORKFLOWS

Tools

search tools

Get Data

Collection Operations

Text Manipulation

Filter and Sort

Join, Subtract and Group

Kallisto quant - quantify abundances of RNA-Seq transcripts

Column Join on Collections

Sequence operations

Workflows

- All workflows

### Workflow: imported: Kallisto Pimephales promelas Workflow - EPA

Run workflow

Click "Run Workflow"

#### History Options

Send results to a new history

Yes No

#### 1: Input dataset collection

32: ME1

1 Select dataset collection in the dropdown menu

#### 2: Transcripts mapping file

1: p\_promelas\_epa\_transcript\_mapping.txt

2 Select mapping file

#### 3: Trim Galore! (Galaxy Version 0.4.3.1)

Is this library paired- or single-end?

Paired Collection

Select a paired collection

Output dataset 'output' from step 1

Adapter sequence to be trimmed

Automatic detection

Trims 1 bp off every read from its 3' end.

false

Remove N bp from the 3' end of read 1

Empty.

Remove N bp from the 3' end of read 2

Empty.

Trim Galore! advanced settings

Use defaults

RRBS specific settings

Use defaults (no RRBS)

Job Post Actions

Delete parent datasets of this step created in this workflow that aren't flagged as outputs. Hide output 'trimmed\_reads\_paired\_collection'. Hide output 'trimmed\_reads\_pair1'. Hide output 'report\_file'. Hide output 'trimmed\_reads\_pair2'. Hide output 'trimmed\_reads\_single'. Hide output 'unpaired\_reads\_2'. Hide output 'unpaired\_reads\_1'. Hide output 'trimmed\_reads\_unpaired\_collection'.

#### 4: Kallisto quant (Galaxy Version 0.43.1.3)

#### 5: Cut (Galaxy Version 1.0.2)

#### 6: Column Join (Galaxy Version 0.0.3)

#### History

search datasets

#### Unnamed history

2 shown, 30 hidden

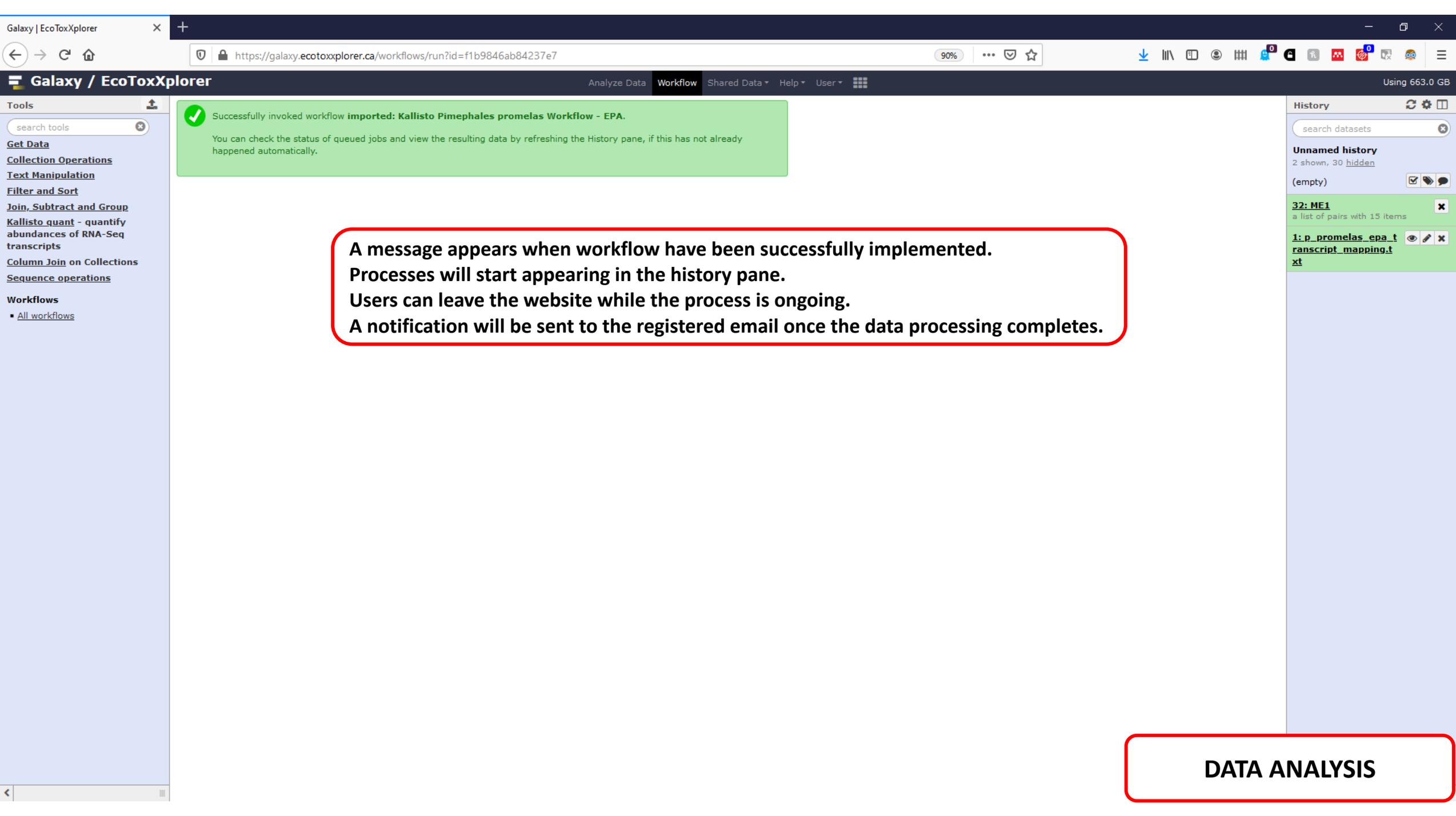
(empty)

32: ME1

a list of pairs with 15 items

1: p\_promelas\_epa\_transcript\_mapping.txt

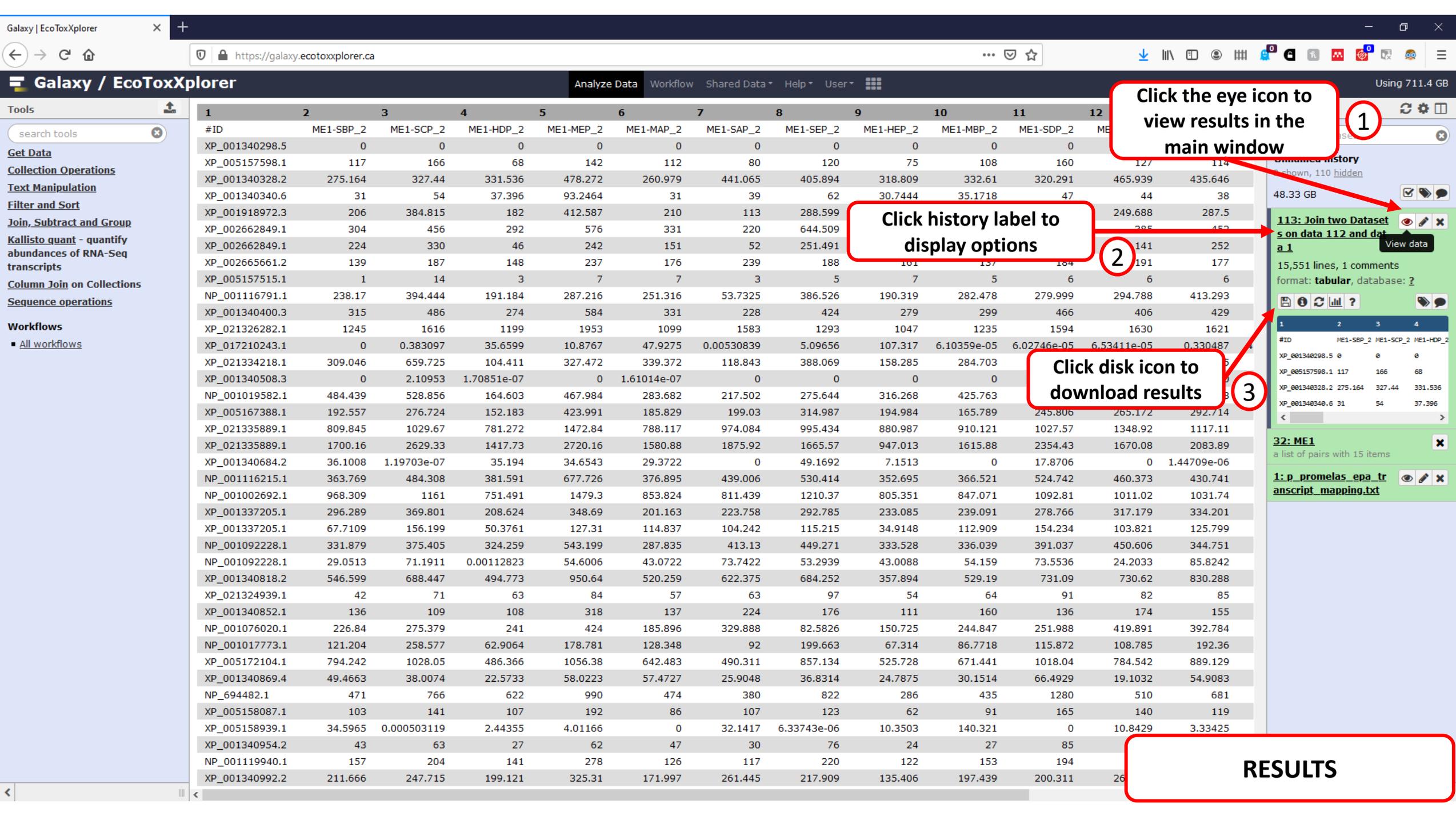
DATA ANALYSIS



✓ Successfully invoked workflow **imported: Kallisto Pimephales promelas Workflow - EPA**.  
You can check the status of queued jobs and view the resulting data by refreshing the History pane, if this has not already happened automatically.

**A message appears when workflow have been successfully implemented.  
Processes will start appearing in the history pane.  
Users can leave the website while the process is ongoing.  
A notification will be sent to the registered email once the data processing completes.**

**DATA ANALYSIS**



Click the eye icon to view results in the main window

1

Click history label to display options

2

Click disk icon to download results

3

RESULTS

# Questions?

Contact us at

[https://www.ecotoxplorer.ca/doc/ContactView.x  
html](https://www.ecotoxplorer.ca/doc/ContactView.xhtml)