



THE NEW YORK BOTANICAL GARDEN

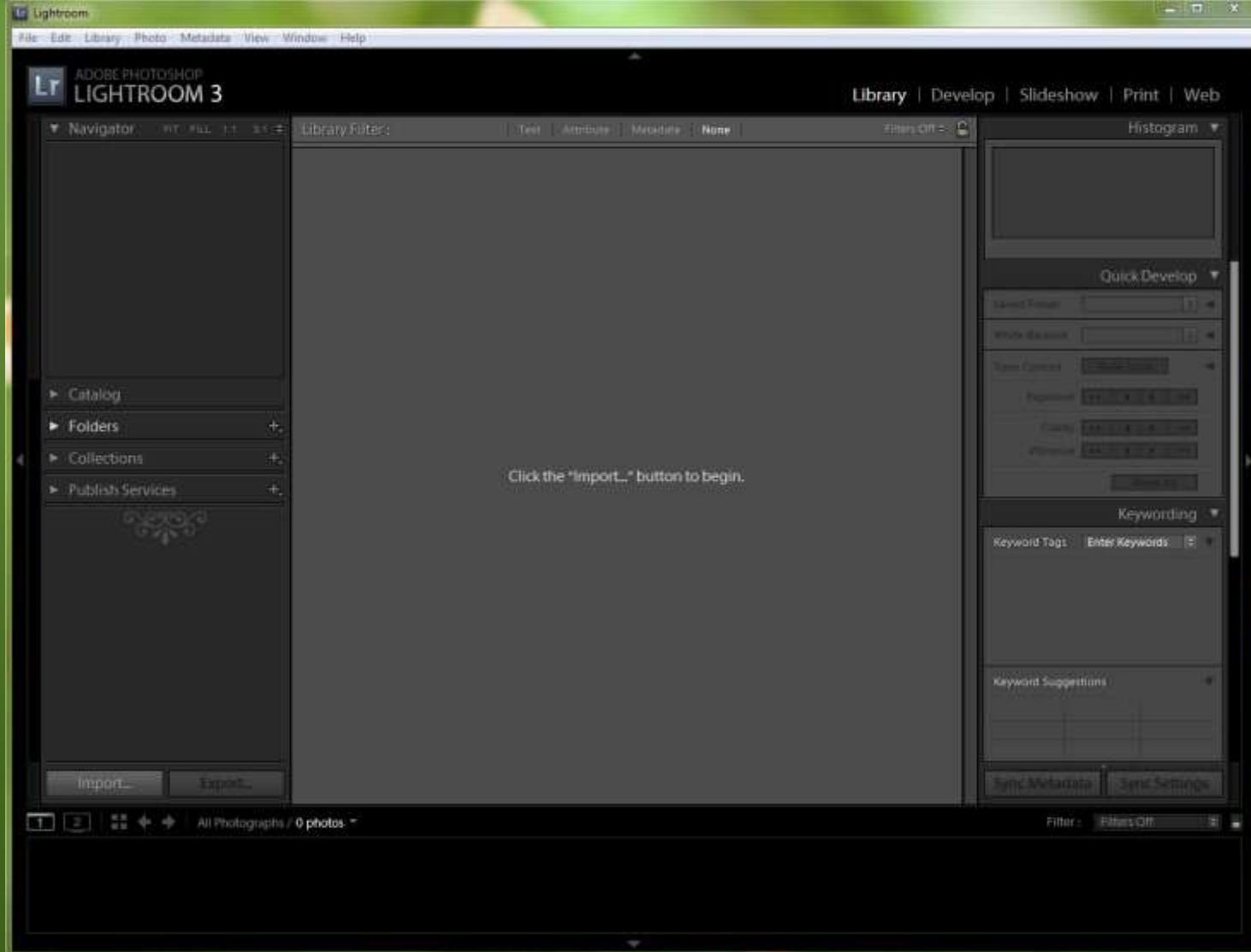
Image Editing Guidelines

prepared by: Michael Bevans
Information Manager for Digitization
The New York Botanical Garden Herbarium

Introduction

The image editing methods shown here are the same methods used for editing plant specimen images at the New York Botanical Garden Herbarium. They may be useful as guidelines for producing color balanced, well exposed and suitably sharp images using Adobe Lightroom.

There are many methods and image editing programs available that can be used to for produce desirable digital images. This is not intended as a comprehensive image editing manual.



Software: Adobe Lightroom

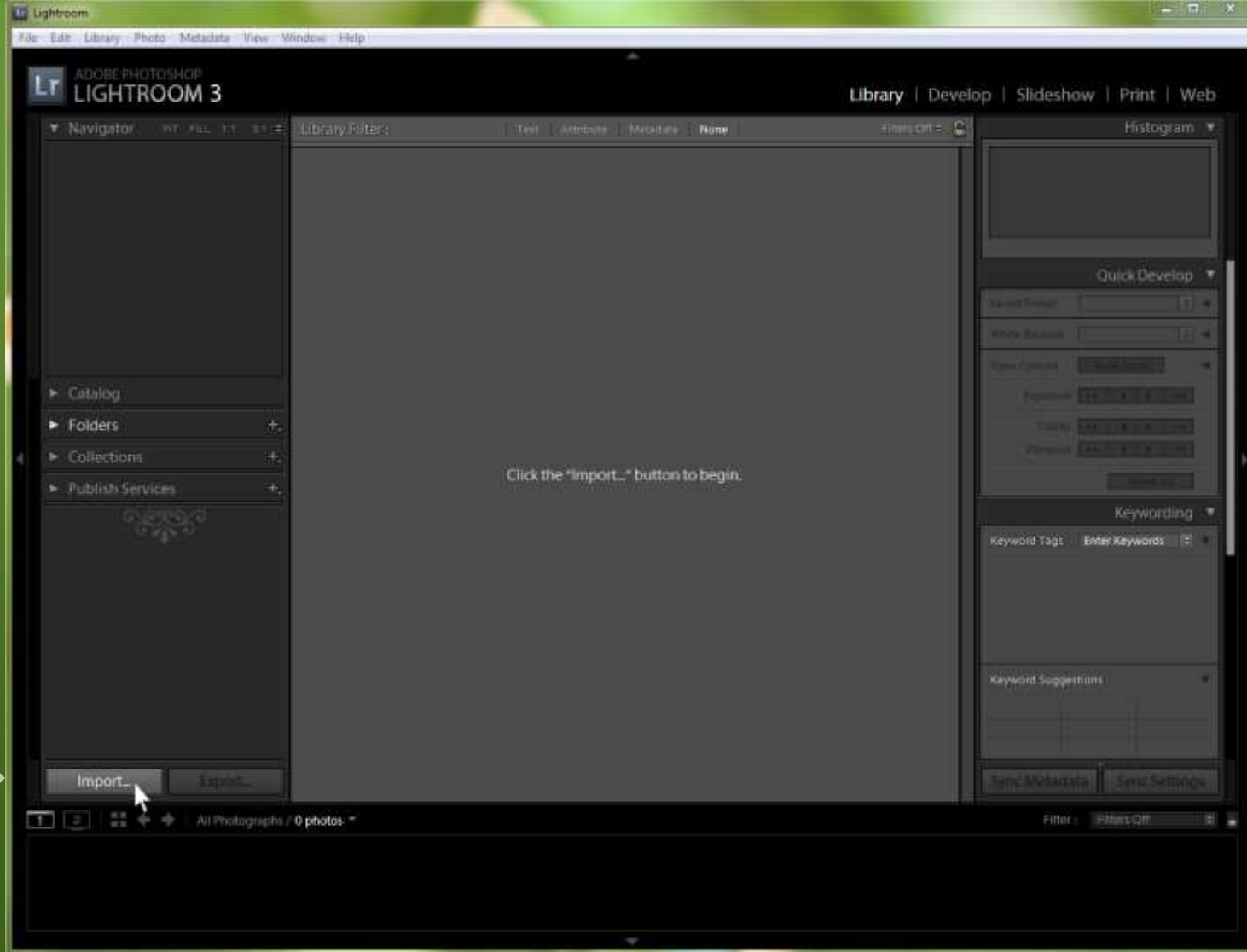
- Version 3.6 shown
- Other versions may vary in appearance

Importing Images

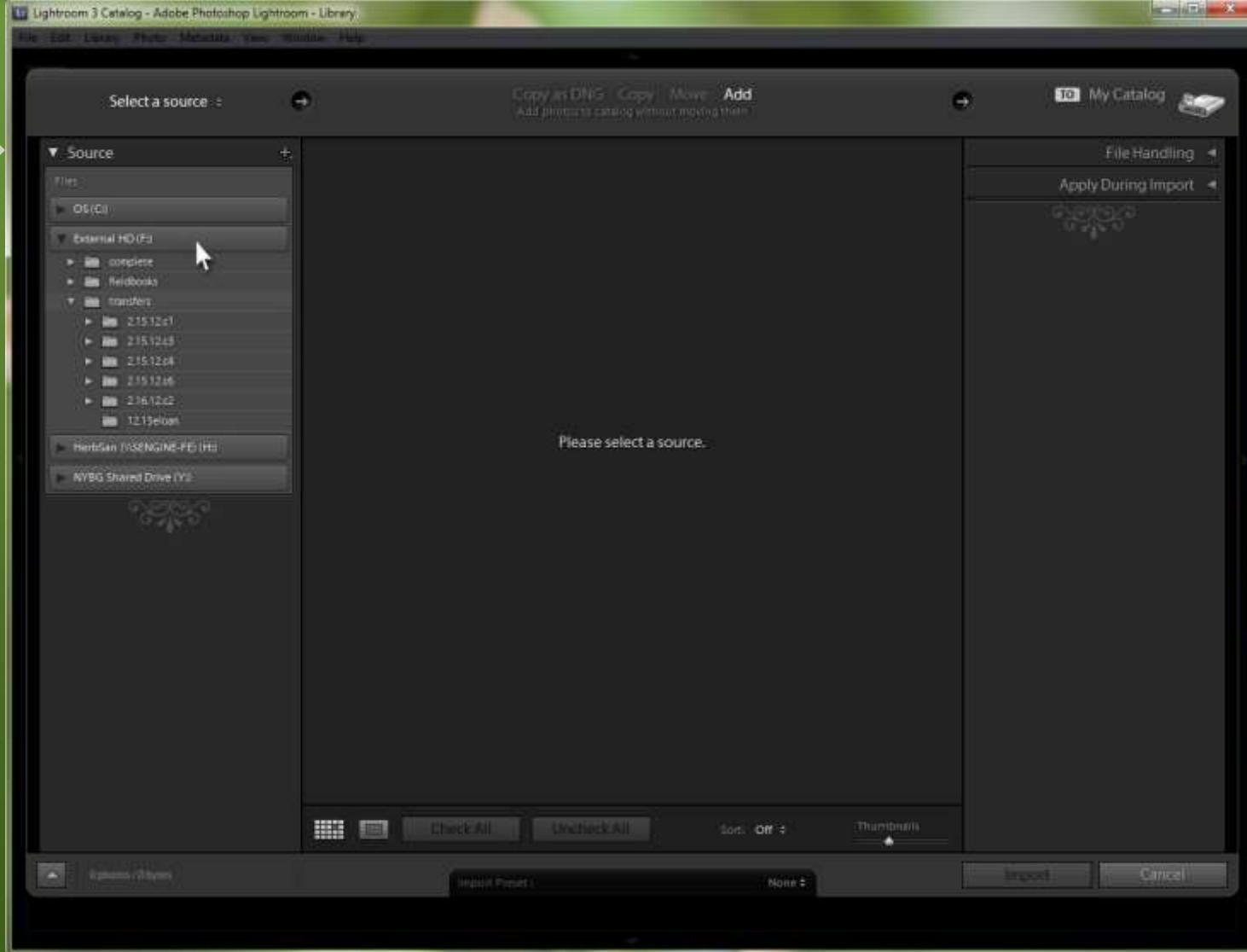
Adobe Lightroom is a combination of cataloging and image editing software.

Unlike Photoshop, images are not opened in Lightroom and edits are not made directly to an image, instead they are saved as a set of instructions in a catalog file (.lrcat). The original images remain unchanged. Edits are applied to images when they are exported from Lightroom.

Importing images is a process of browsing files and creating thumbnails and previews. Metadata from preset templates may be applied during import.

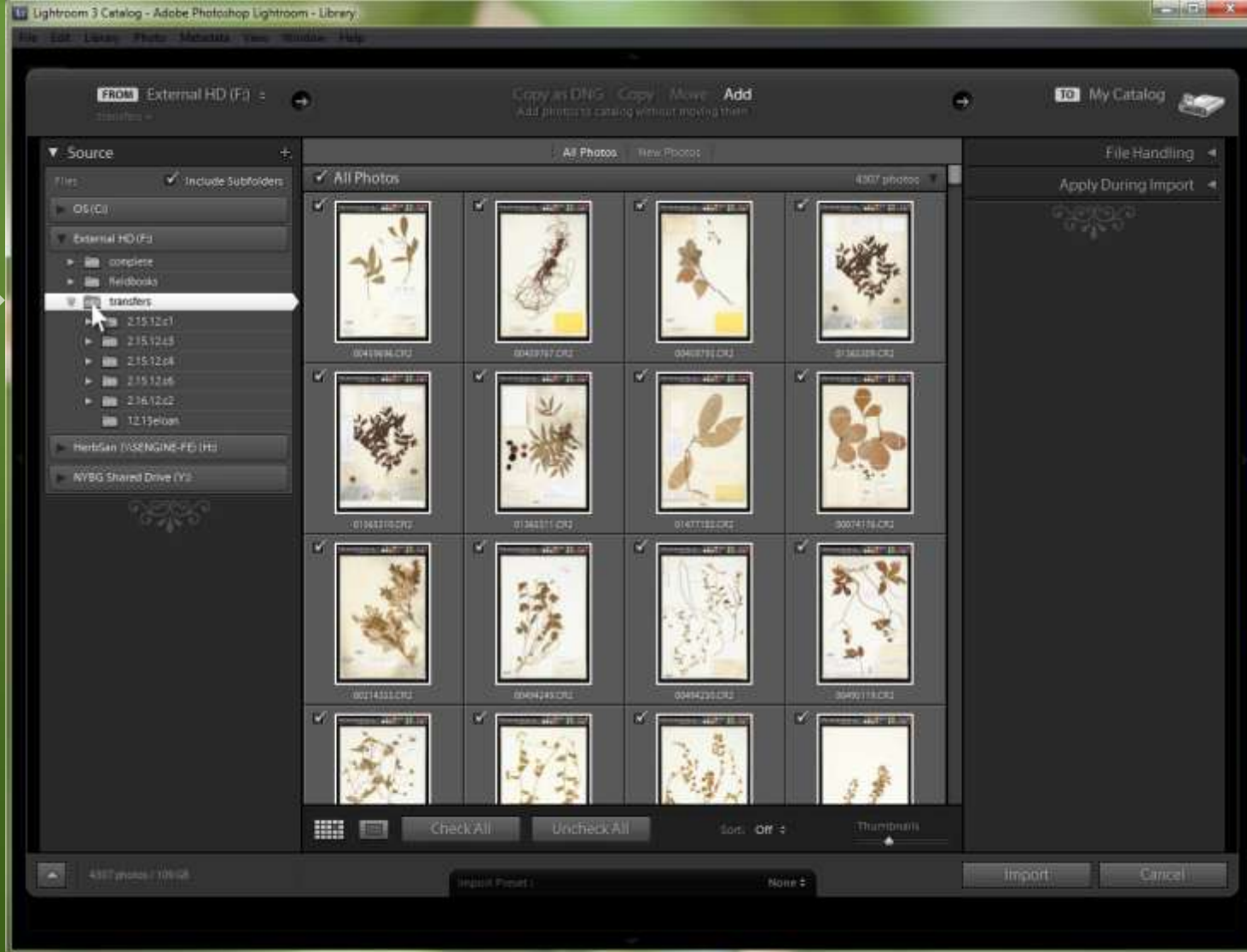


To begin, click on the Import button.



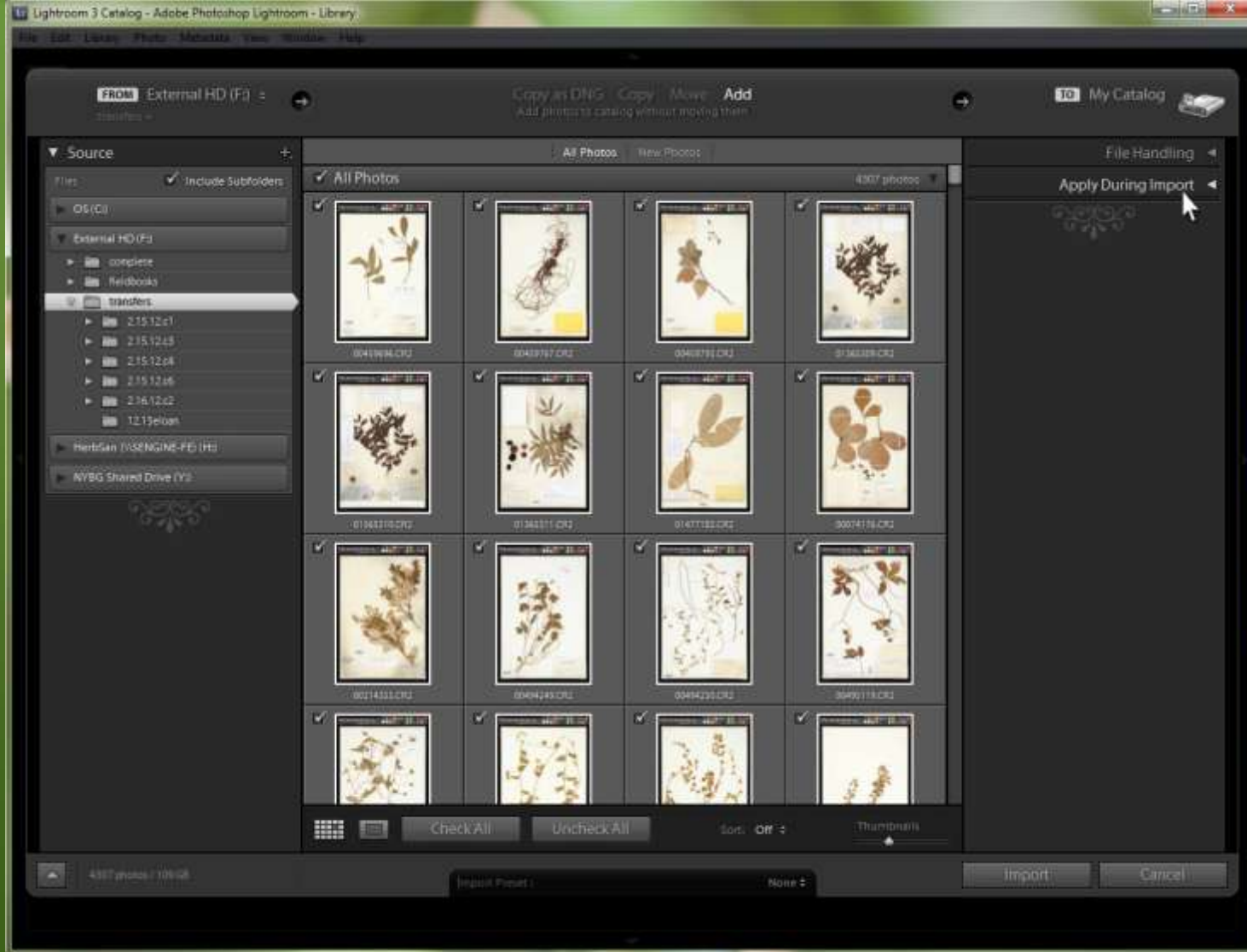
Import Screen

- In the Source Panel, navigate to the folder containing the camera images



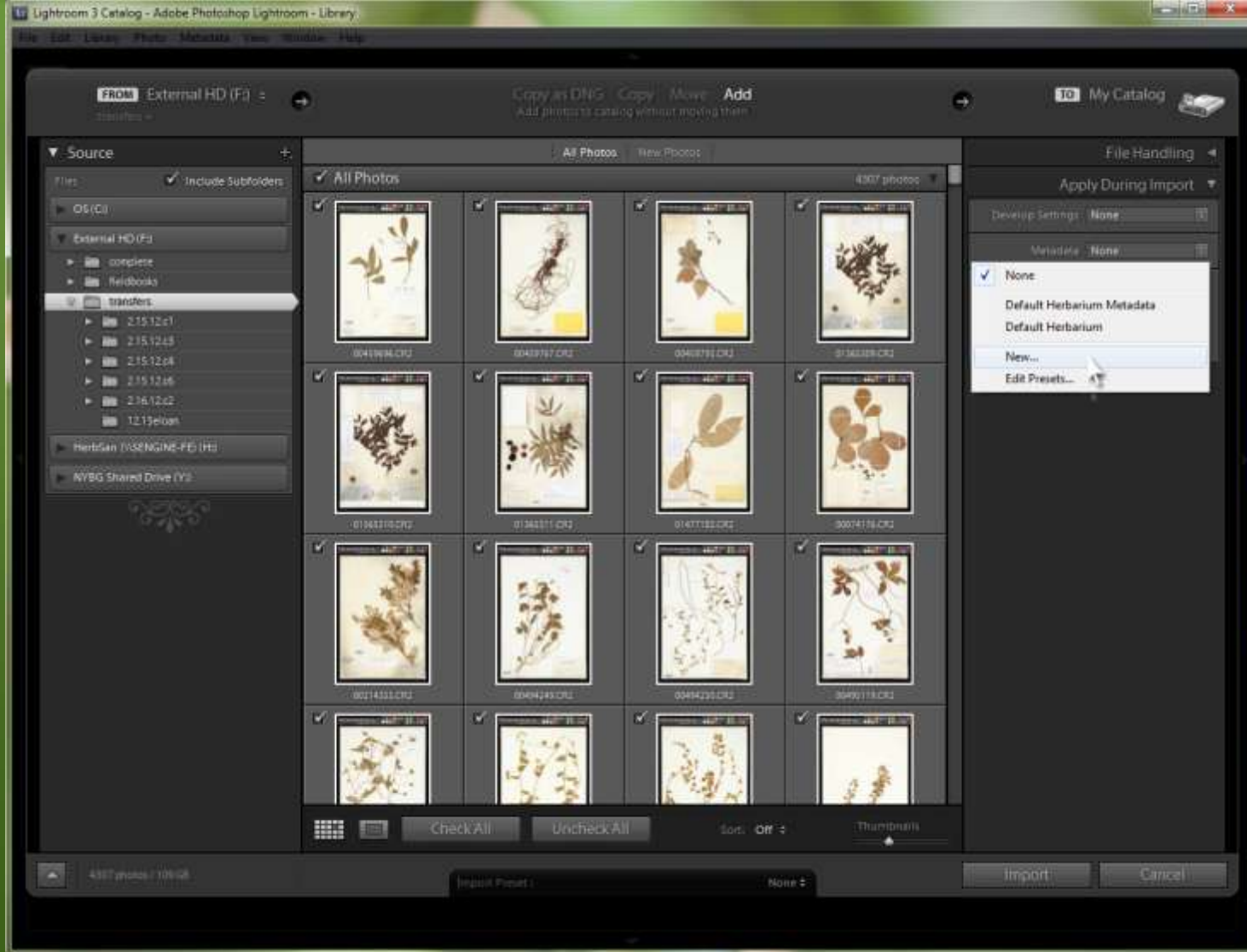
Import Screen

- Select the folder with the images to be edited
- The center panel will be populated with thumbnails



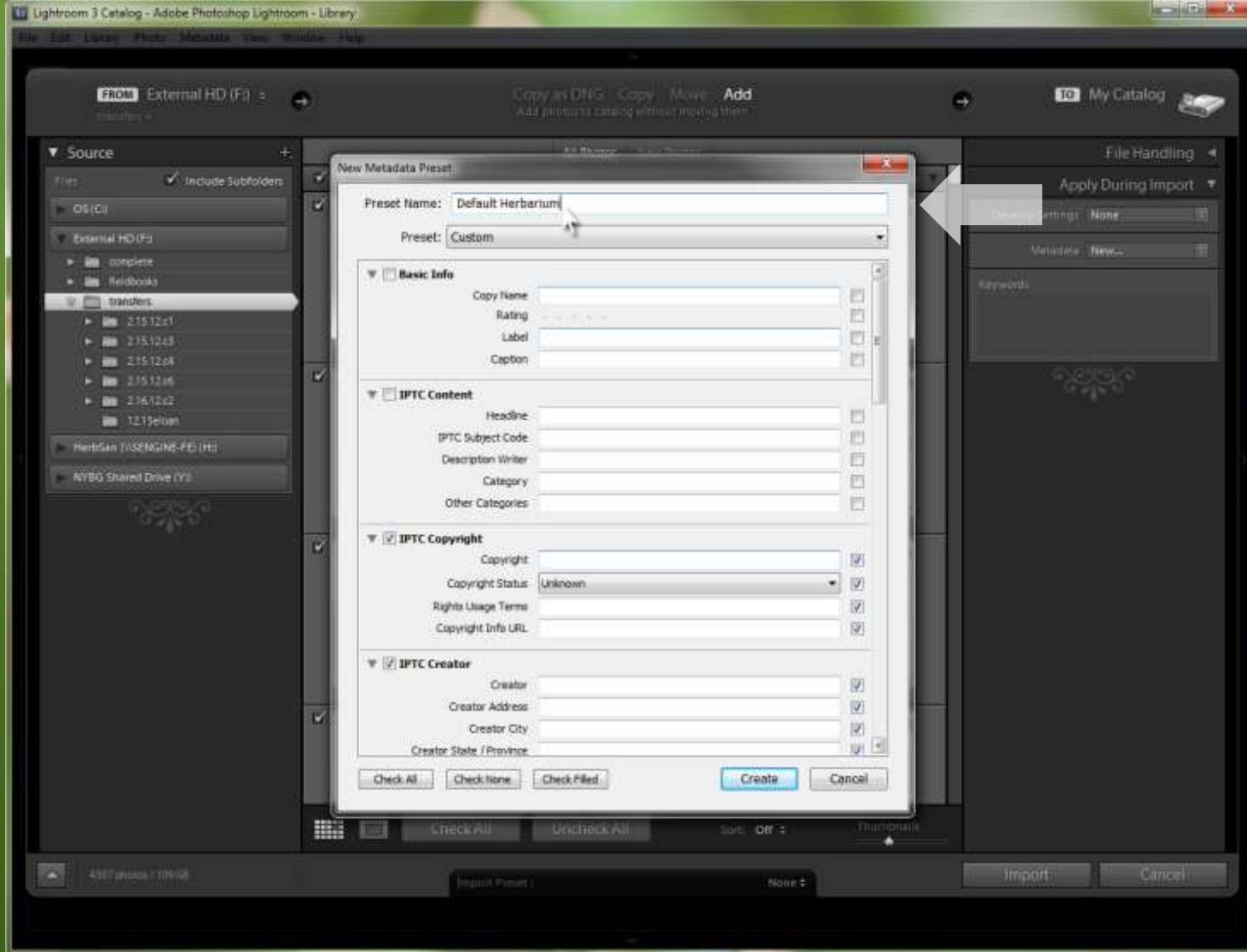
Apply During Import

- Create and save metadata template with common fields pre-populated



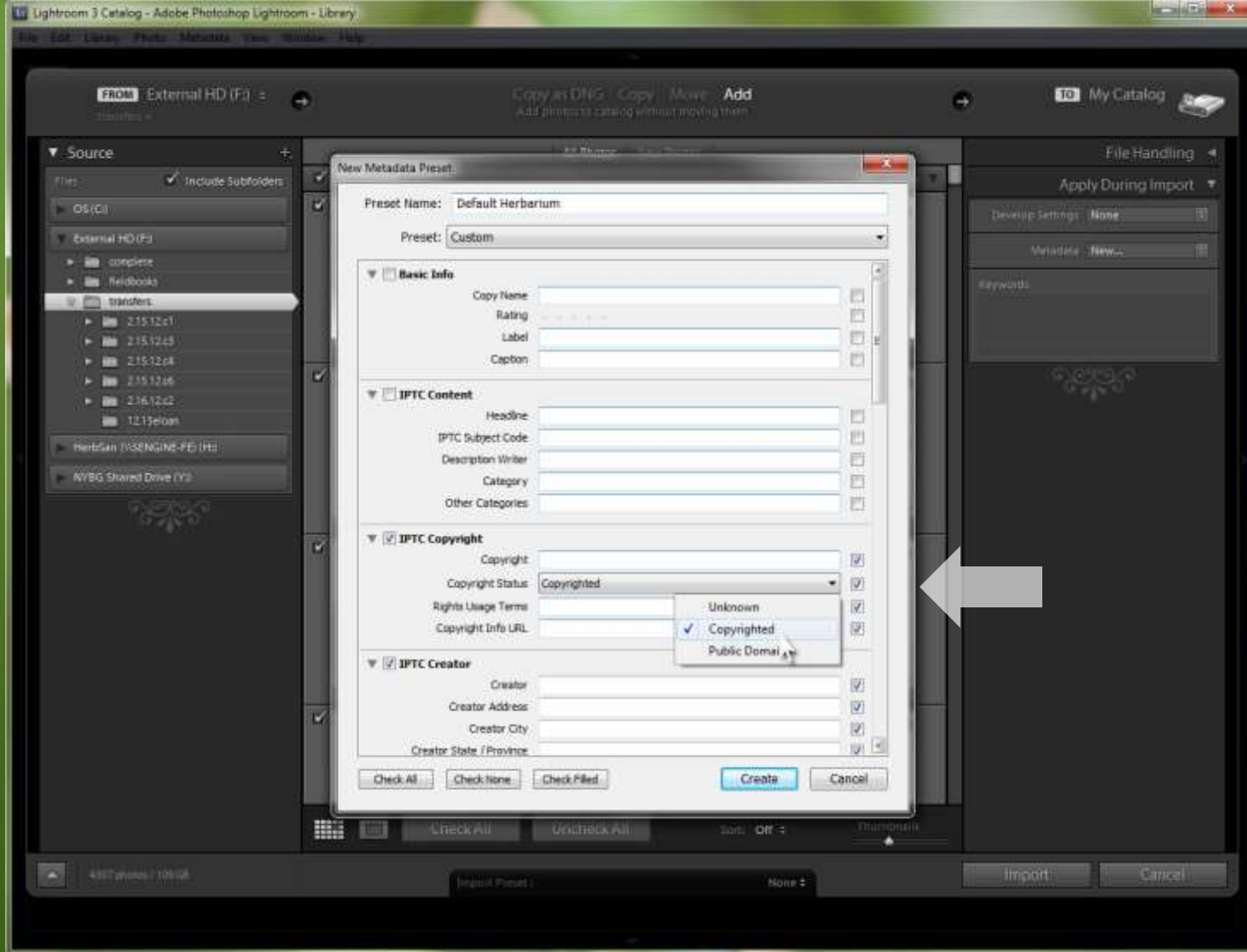
Metadata

- To create a new template, select New... from the dropdown menu



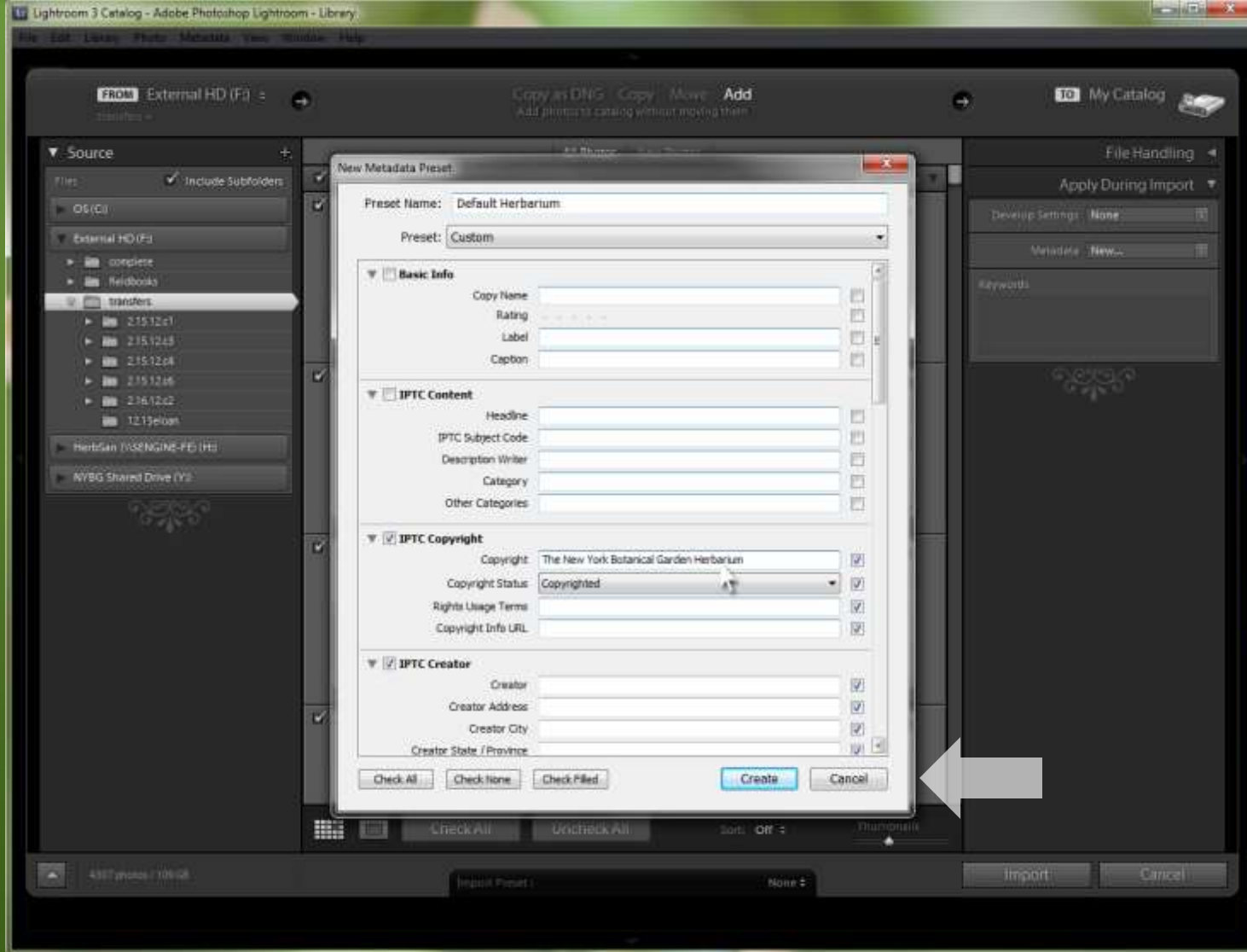
New Metadata Preset

- Name your preset



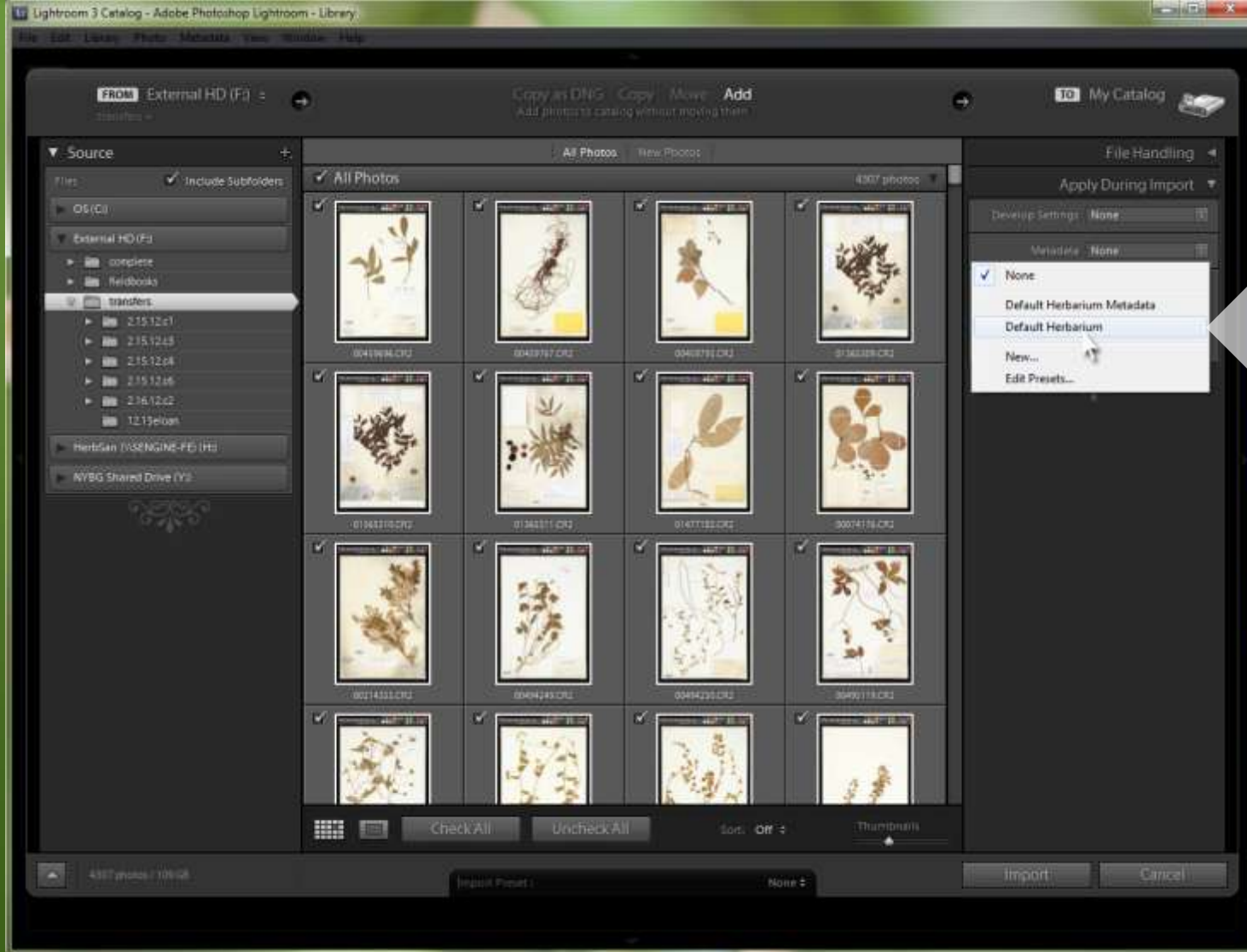
New Metadata Preset

- Set Copyright Status to Copyrighted



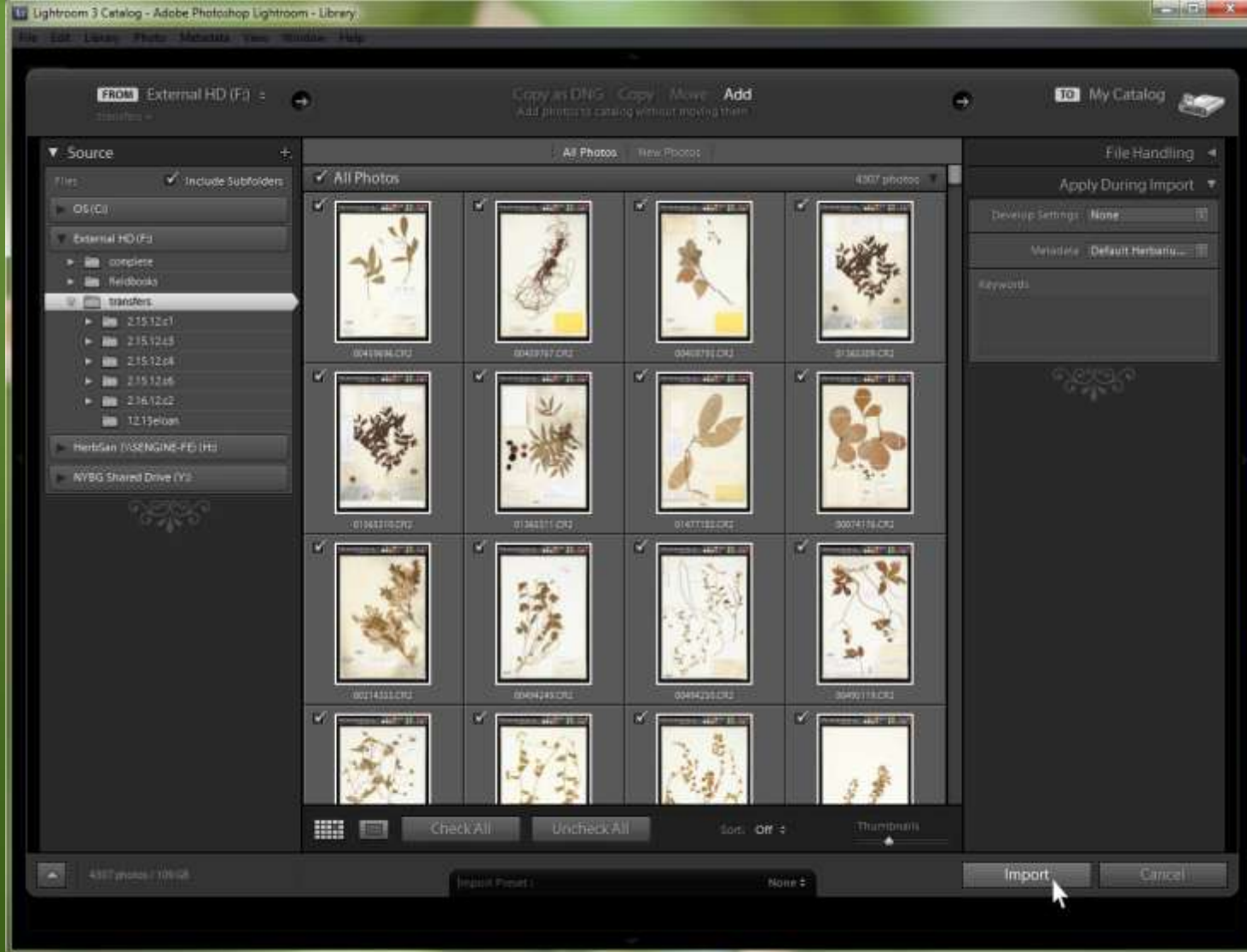
New Metadata Preset

- Enter copyright information
- Enter as many fields as needed and click the Create button



Metadata

- Select the preset from the Metadata dropdown menu



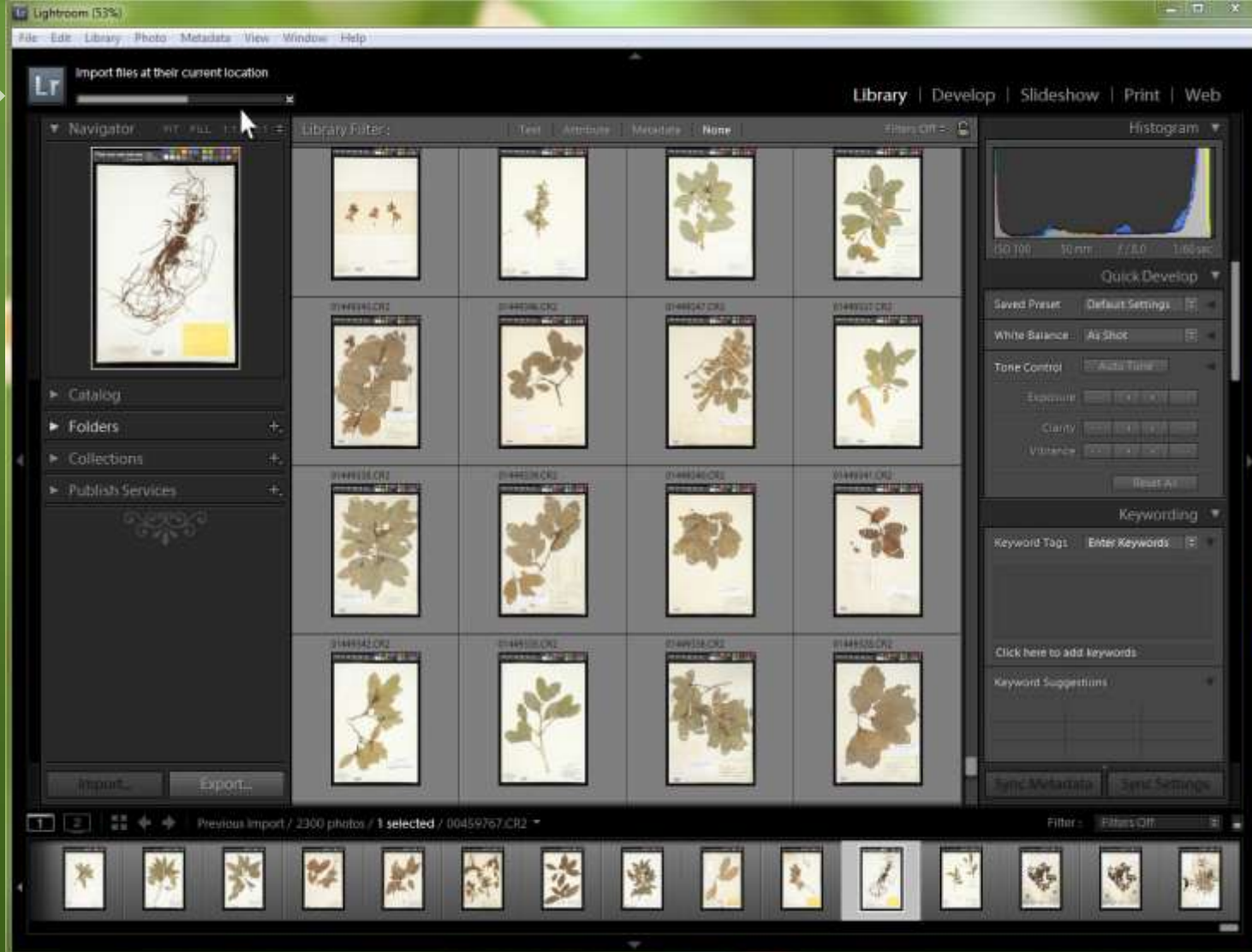
Import

- Press the import button
- The view will revert to the Library module.

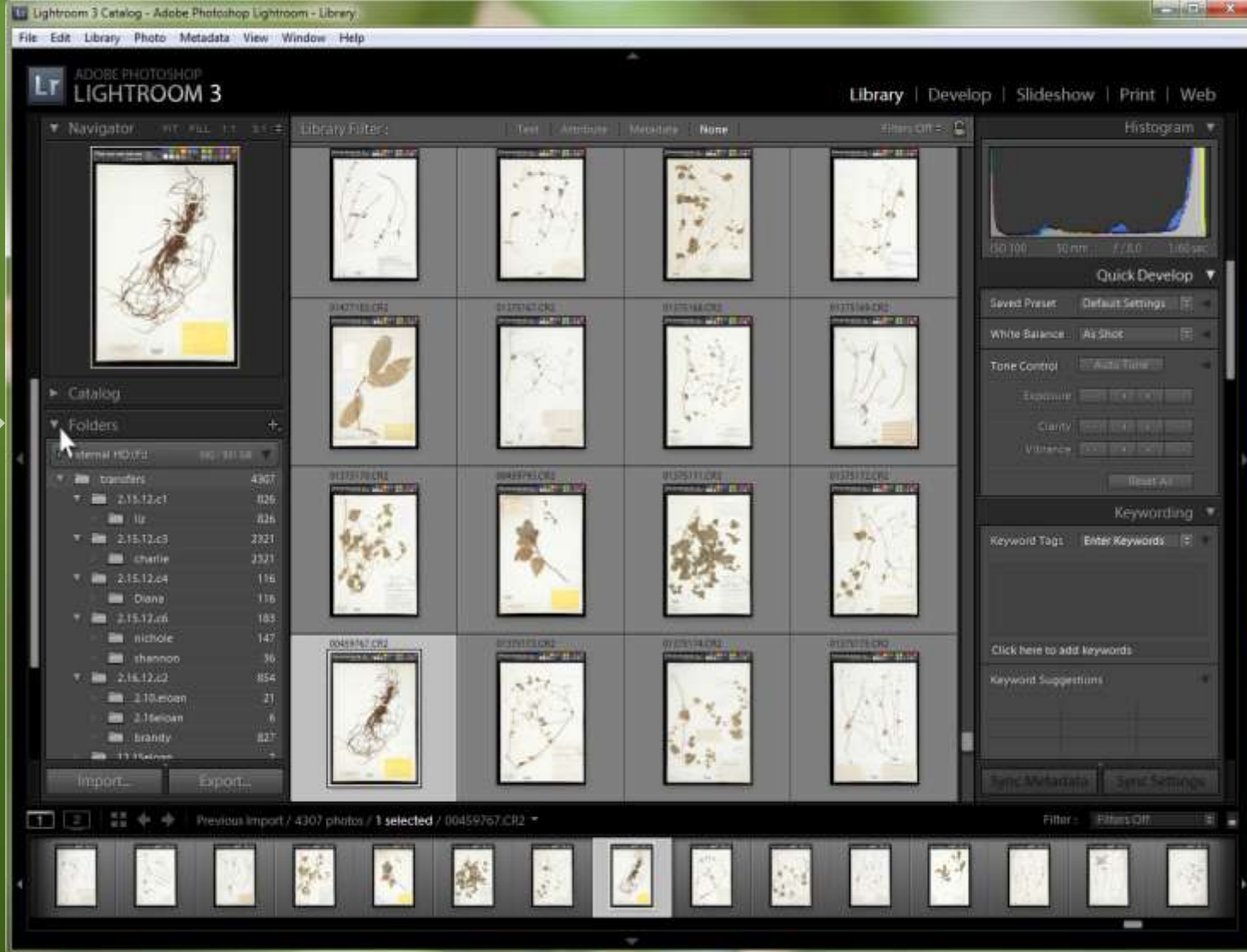
Organizing Images

The Library Module of Adobe Lightroom is the main organizational view. It consists of a navigation panel, a main image area and a metadata panel.

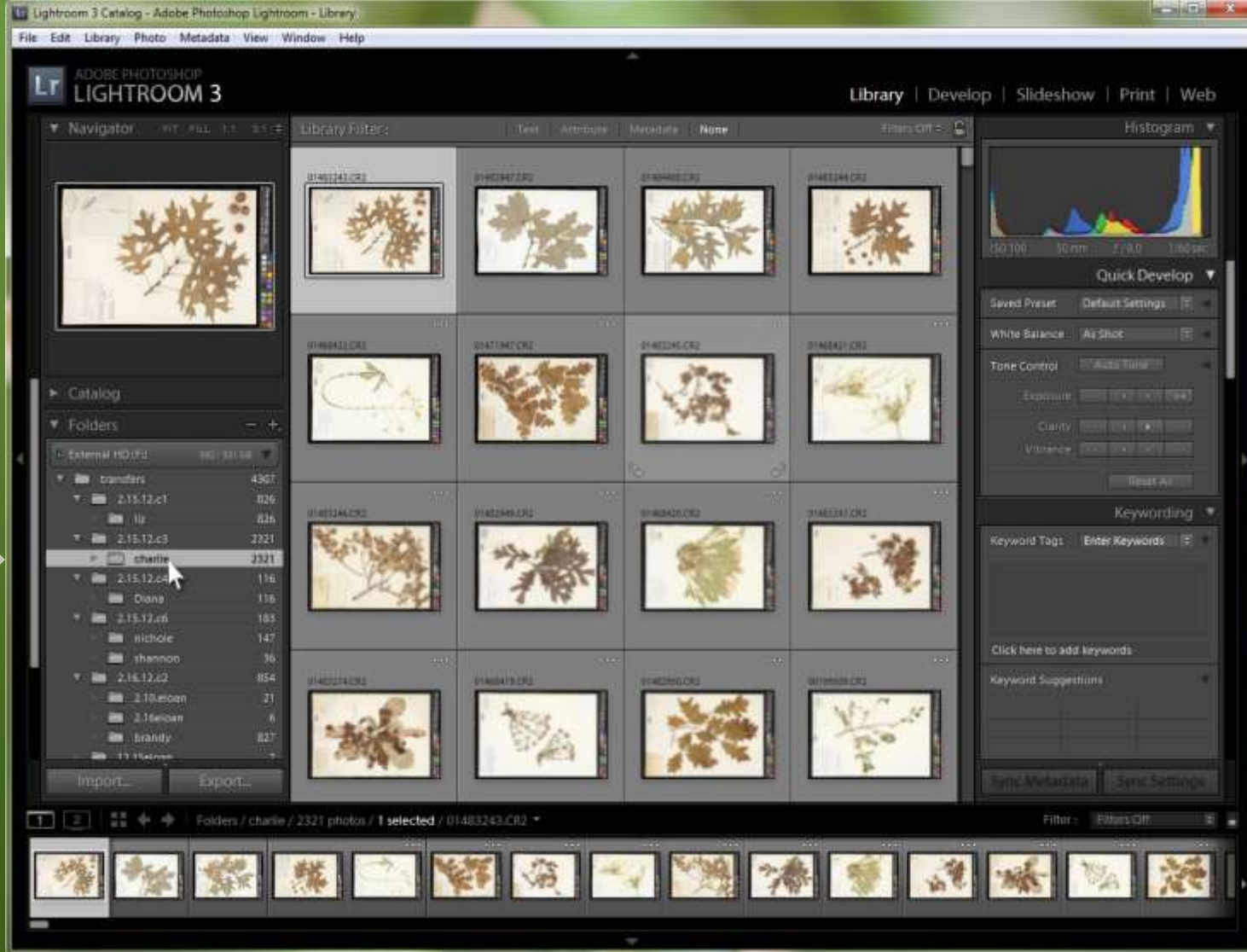
Additional metadata and keywords may be added to images in the Library.



During import, thumbnail images will populate the main screen of the Library module. A status bar in the upper left hand corner of the screen will display the progress of the import.



Navigate to the imported images under the Folders drop down menu.



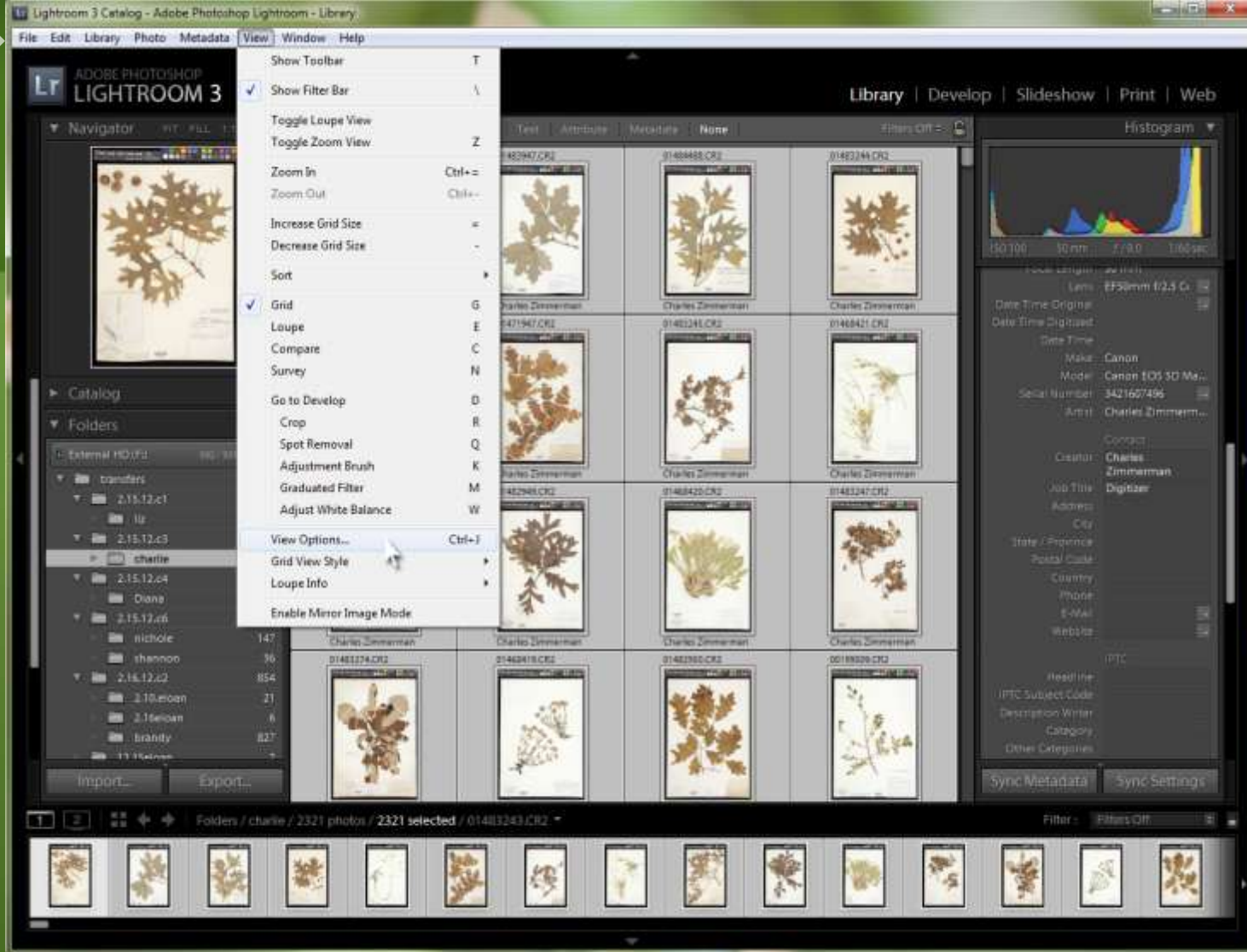
Select a folder of images.

- The thumbnails in the main window display the selected folder's contents

Customizing Lightroom

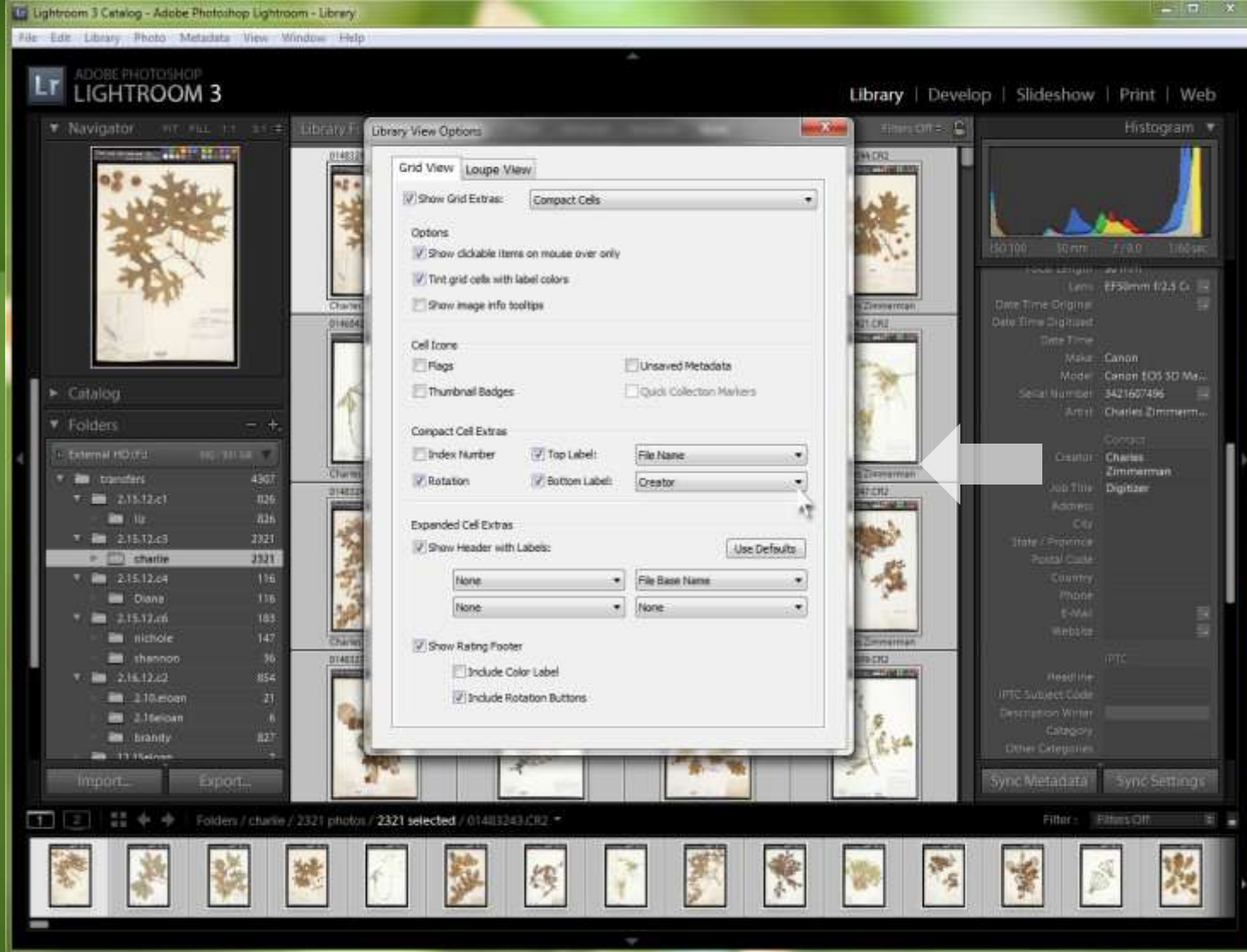
Lightroom can be customized in many ways specific to use.

Shown here are customizations meant to streamline organization.



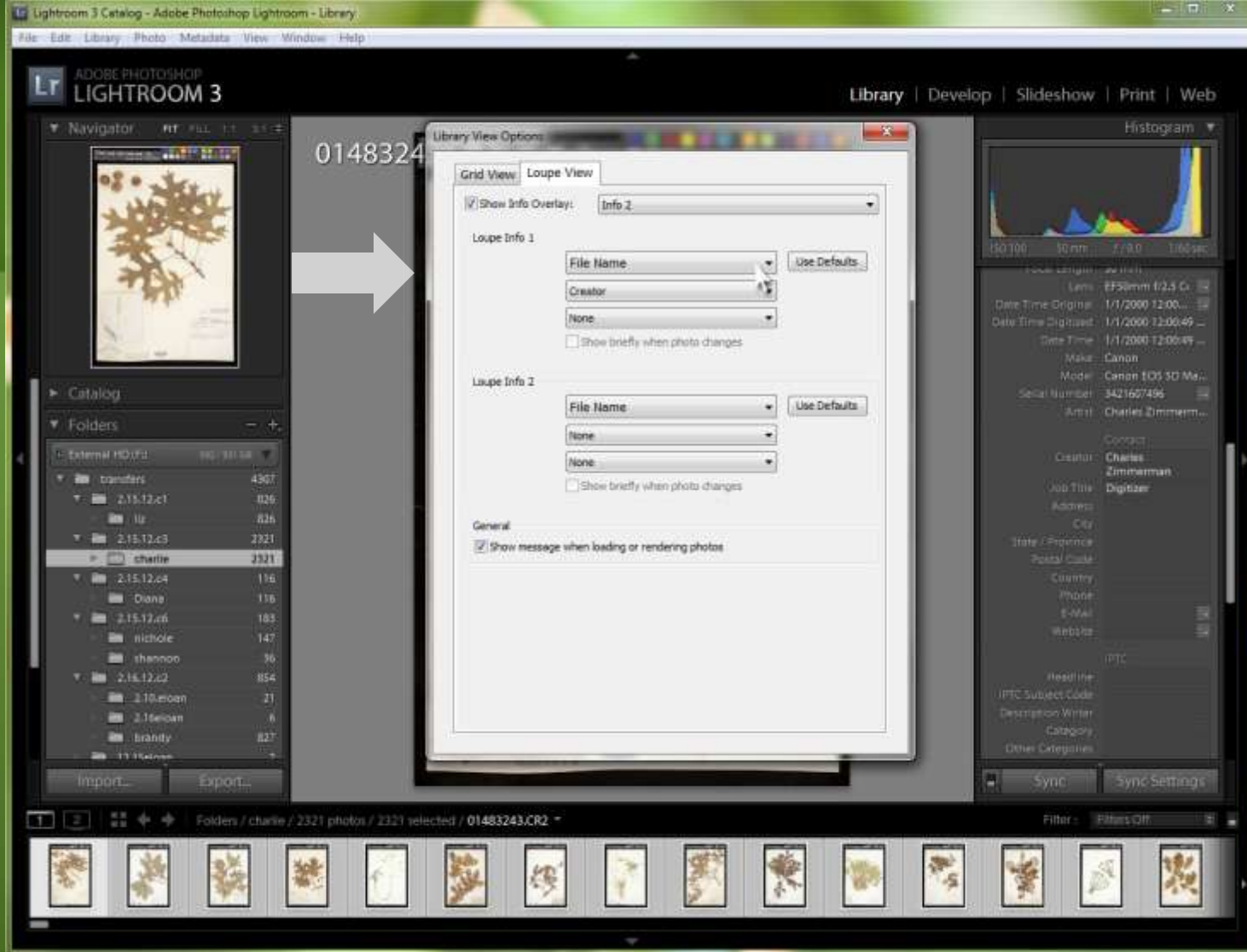
Customize the grid view to show relevant information.

- From the View menu select View Options...



The file name is the most important identifier, in this example it is set as the Top Label. Additional options, such as Creator and rotation arrows are shown as selected.

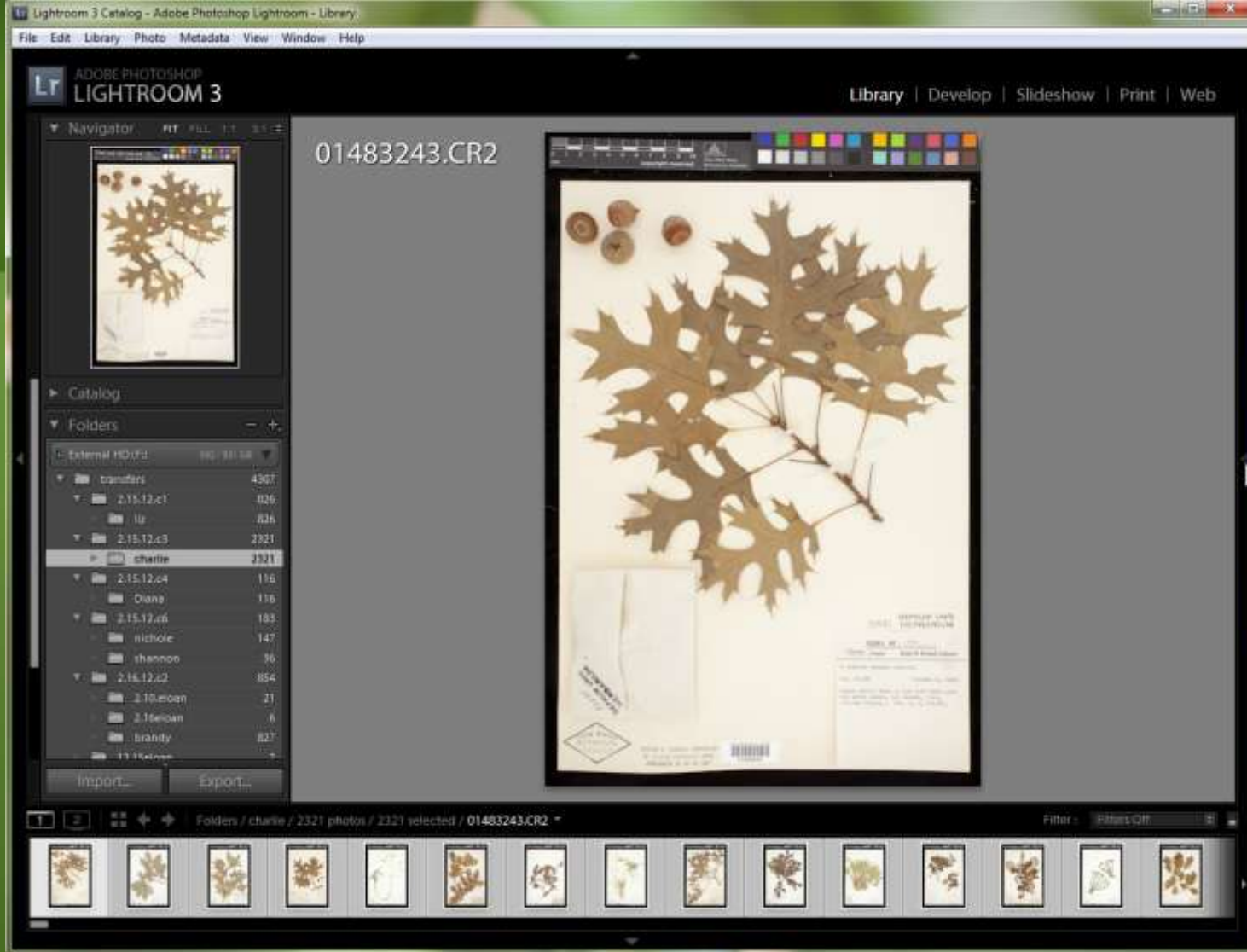
- Closing the View Options panel saves changes



0148324



As with the Grid View, the View Options can be customized to show relevant image information in the Loupe View (magnified view). In the Loupe View, all that is required is the File Name.

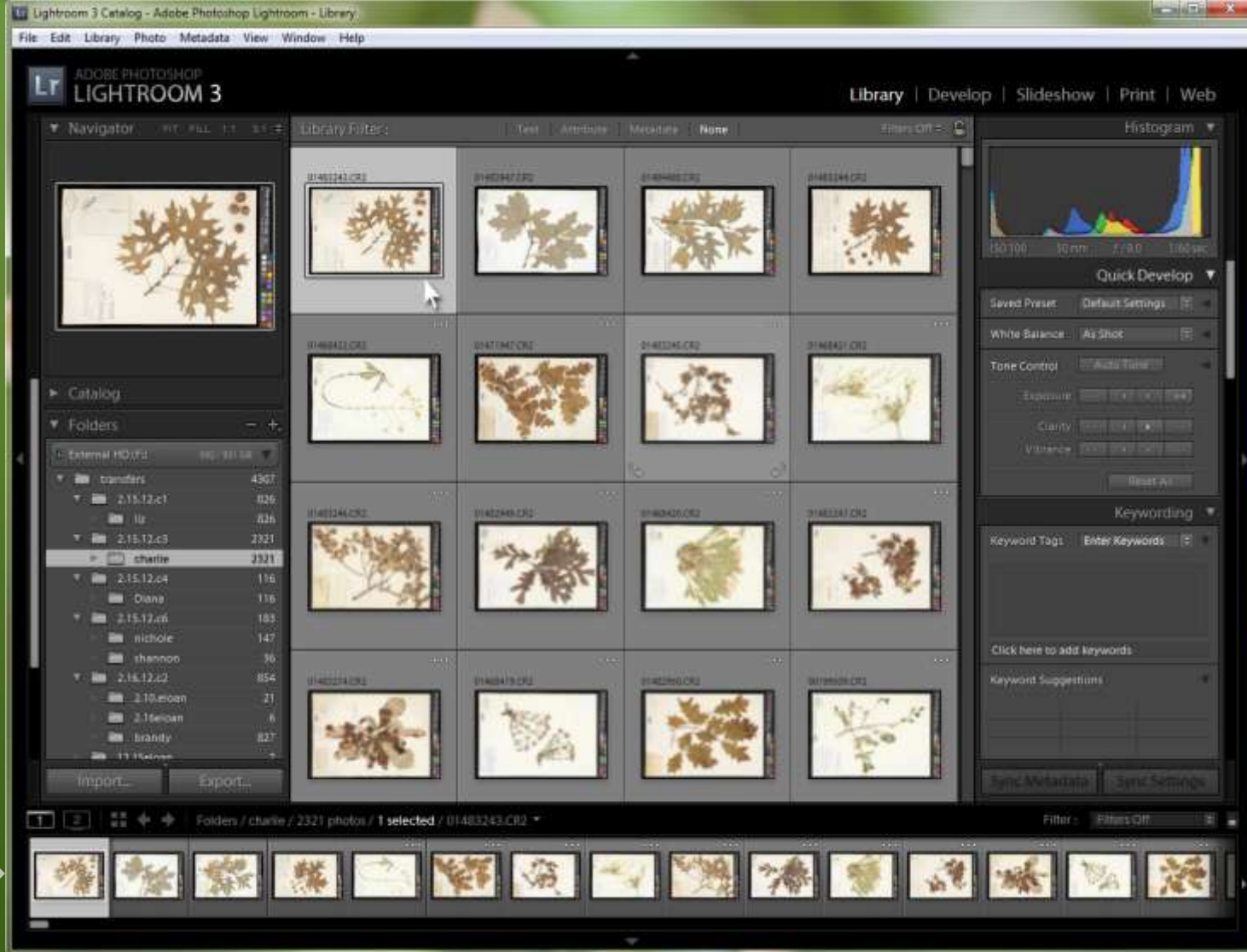


Side panels can be collapsed for a larger viewing area. Click the small dotted arrow on next to the panel to collapse and expand it.

Editing Metadata

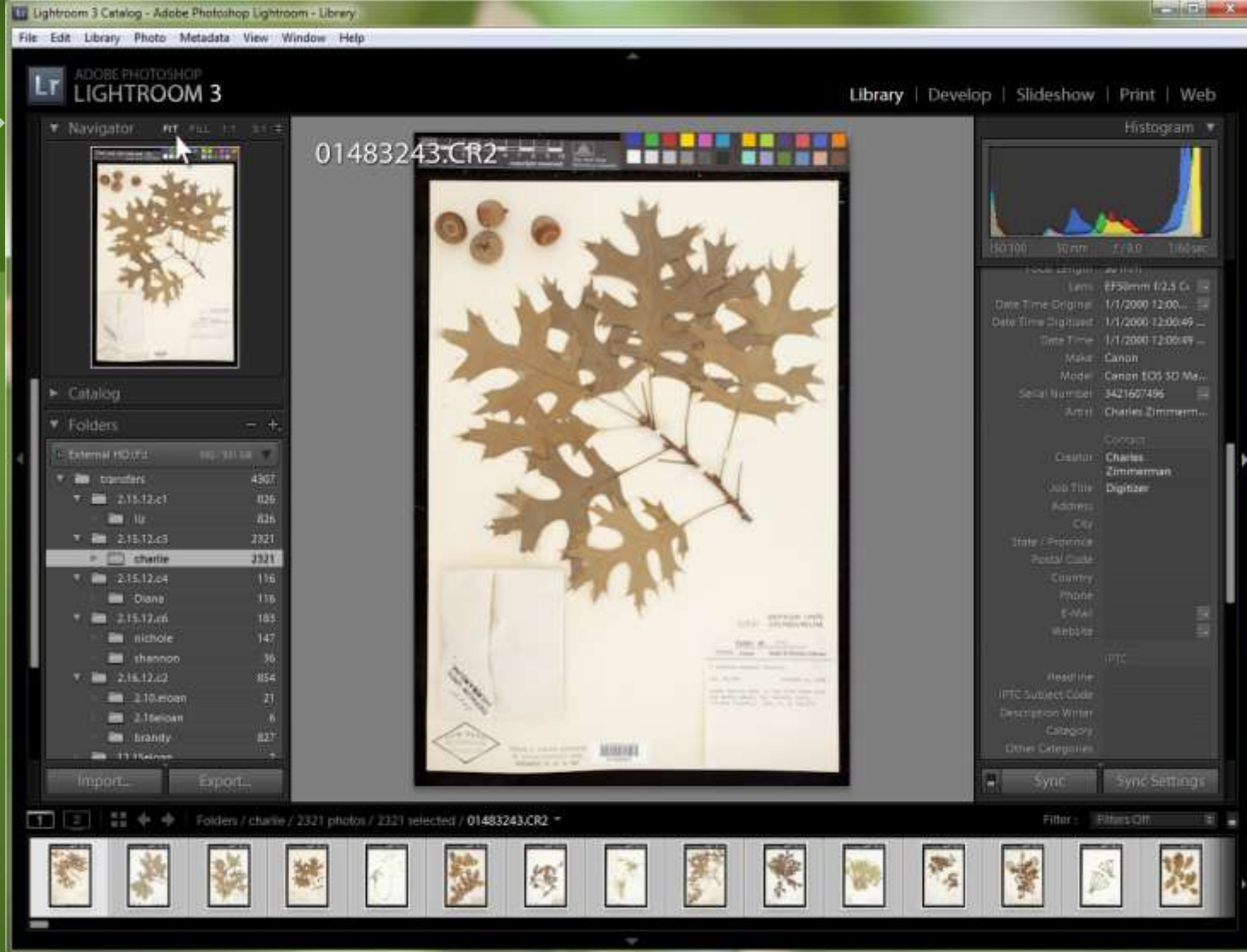
Use the Library module to:

- Add additional metadata, such as Creator or keywords
- Rotate images
- Correct file names



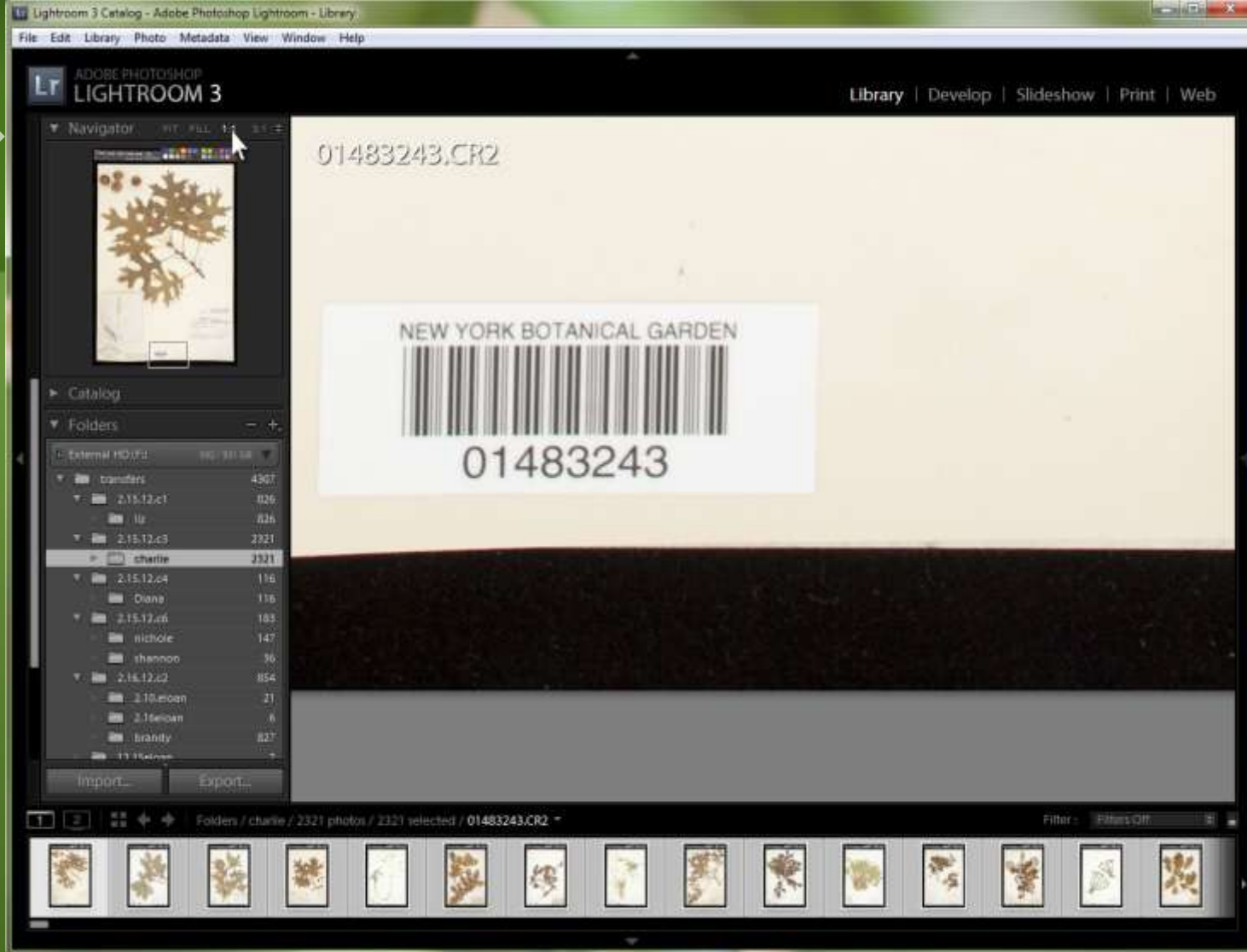
Select an image.

- Click on a thumbnail in the main screen or in the filmstrip at the bottom of the screen
- A highlight indicates that the image is selected

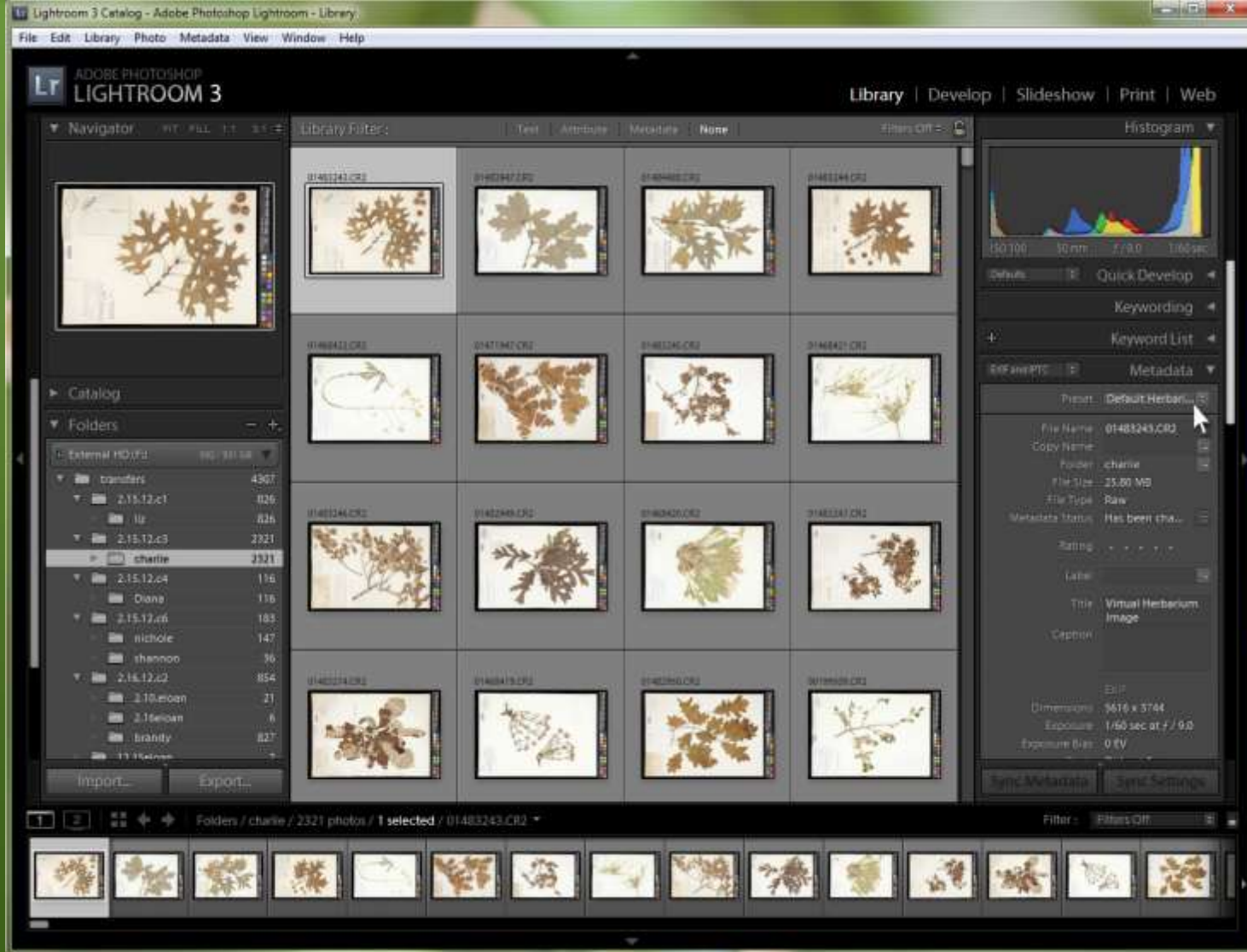


Confirm file names.

- Double click on a thumbnail and select a magnification level from the Navigator to expand the image to a viewable size

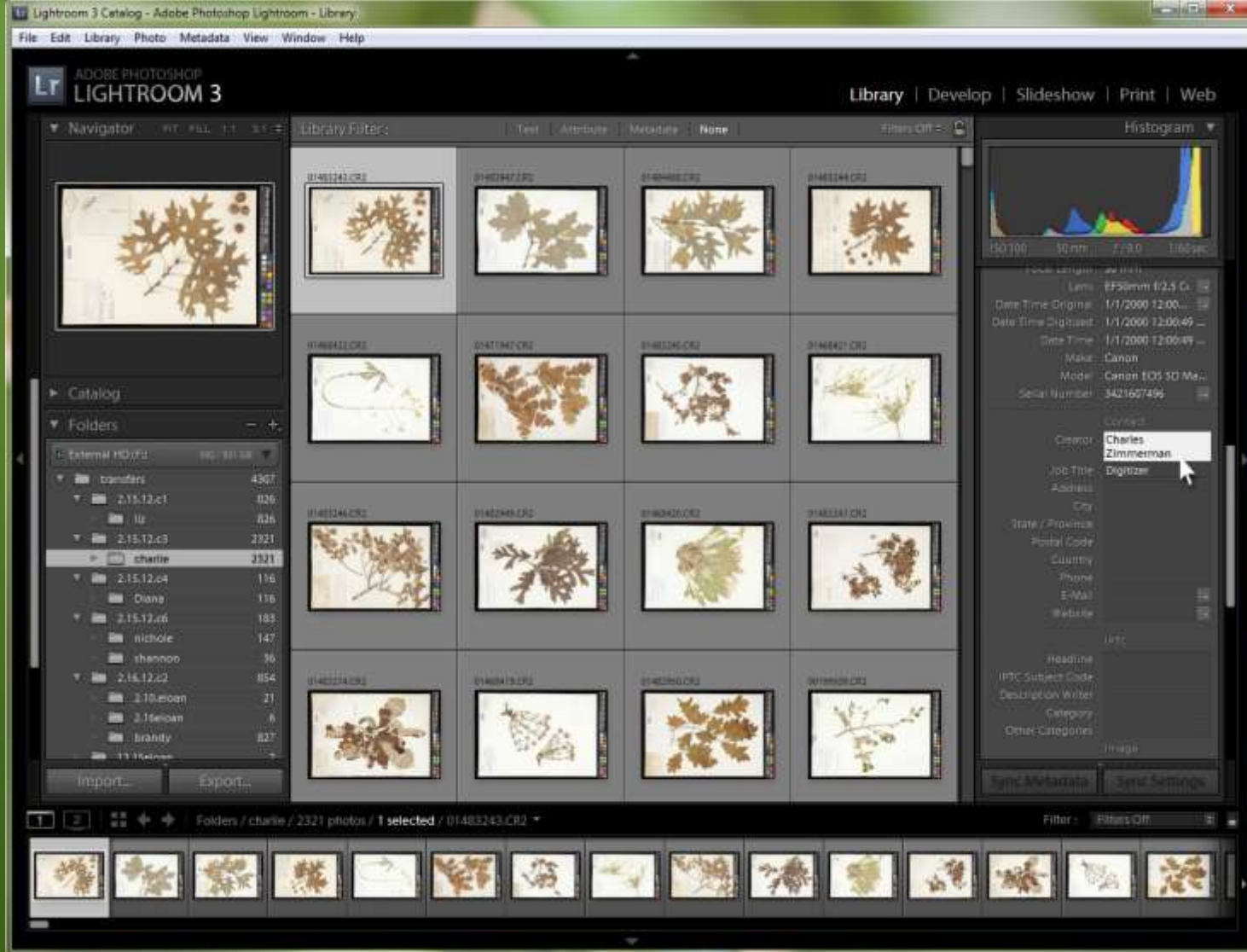


Confirm that the file name matches the barcode number. Scroll through the filmstrip to select and view additional images. Checking every tenth image is sufficient.



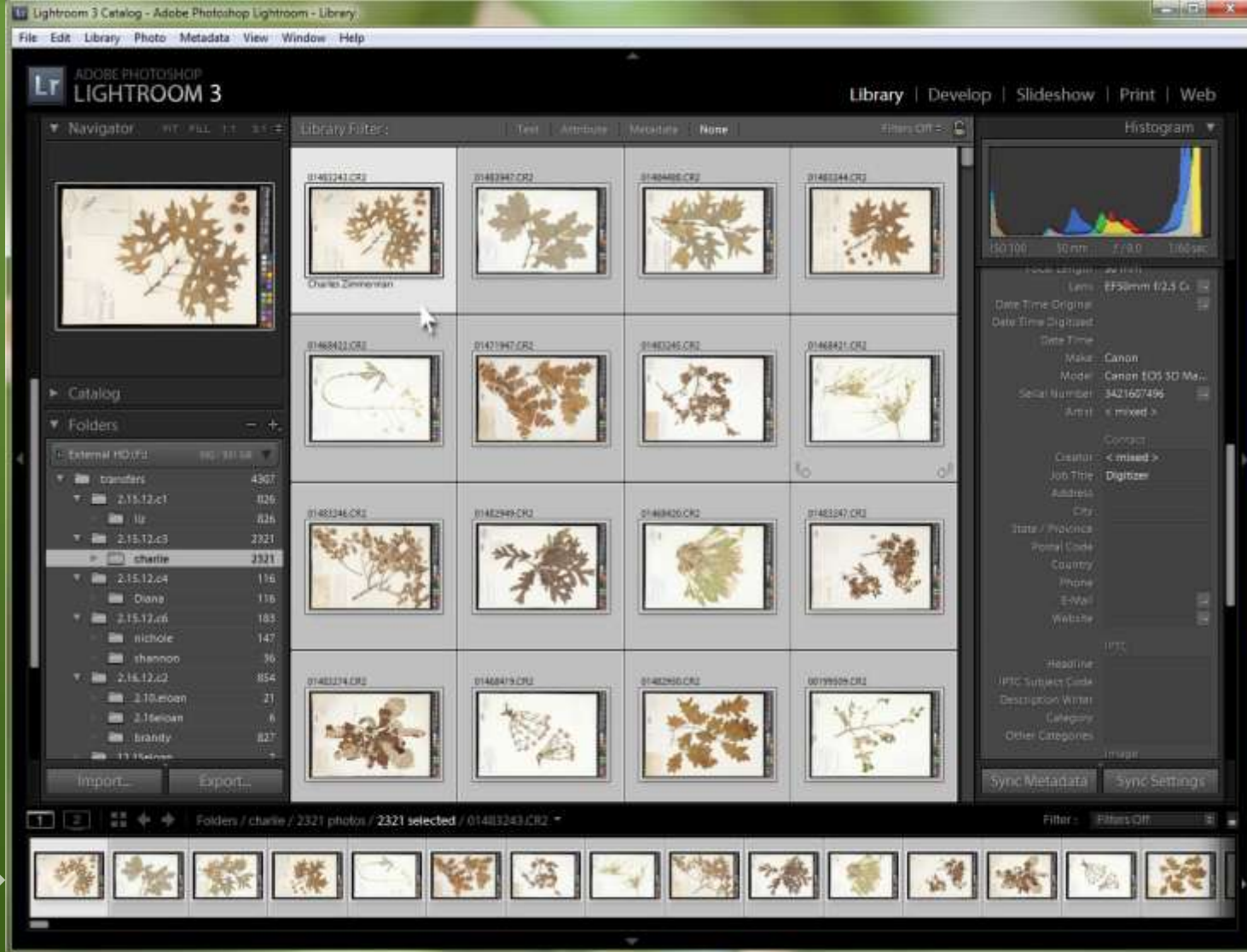
Confirm metadata in the panel on the right side of the screen.

- The metadata preset is shown



Add additional metadata

- Additional information may contain Creator, Job Title, Image Title
- Correct inaccurate file names

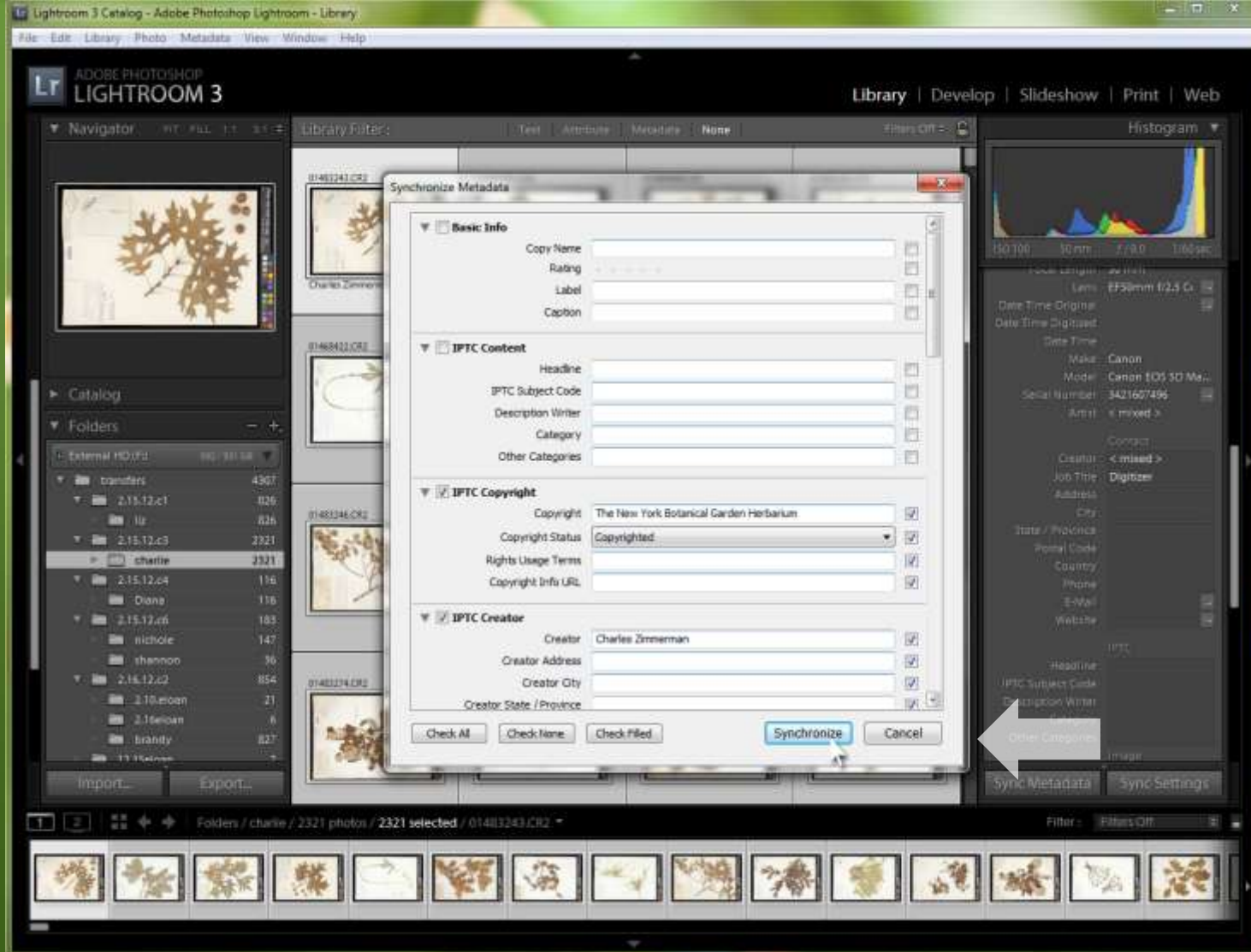


Batch apply additional metadata to all the images in the folder.

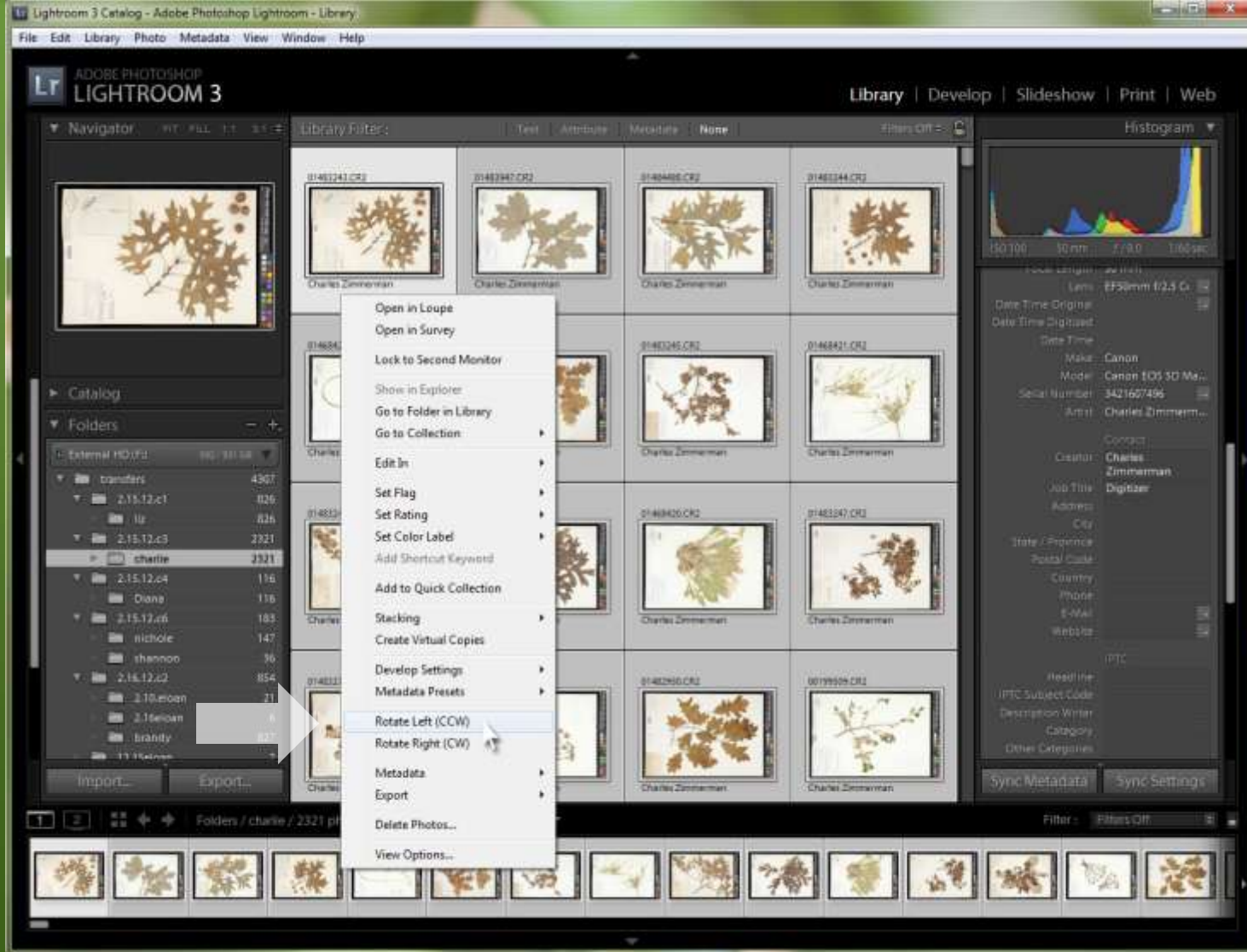
- Select all the images Edit menu/Select or Ctrl+A
- The source image is highlighted brighter than the target images



Press the Sync Metadata button.



Confirm metadata settings and/or add any additional metadata then press the Synchronize button to apply checked metadata items to selected images.



In this example, the images need to be rotated. With all the thumbnails selected, right click on a thumbnail and select Rotate Left (CCW) from the menu.



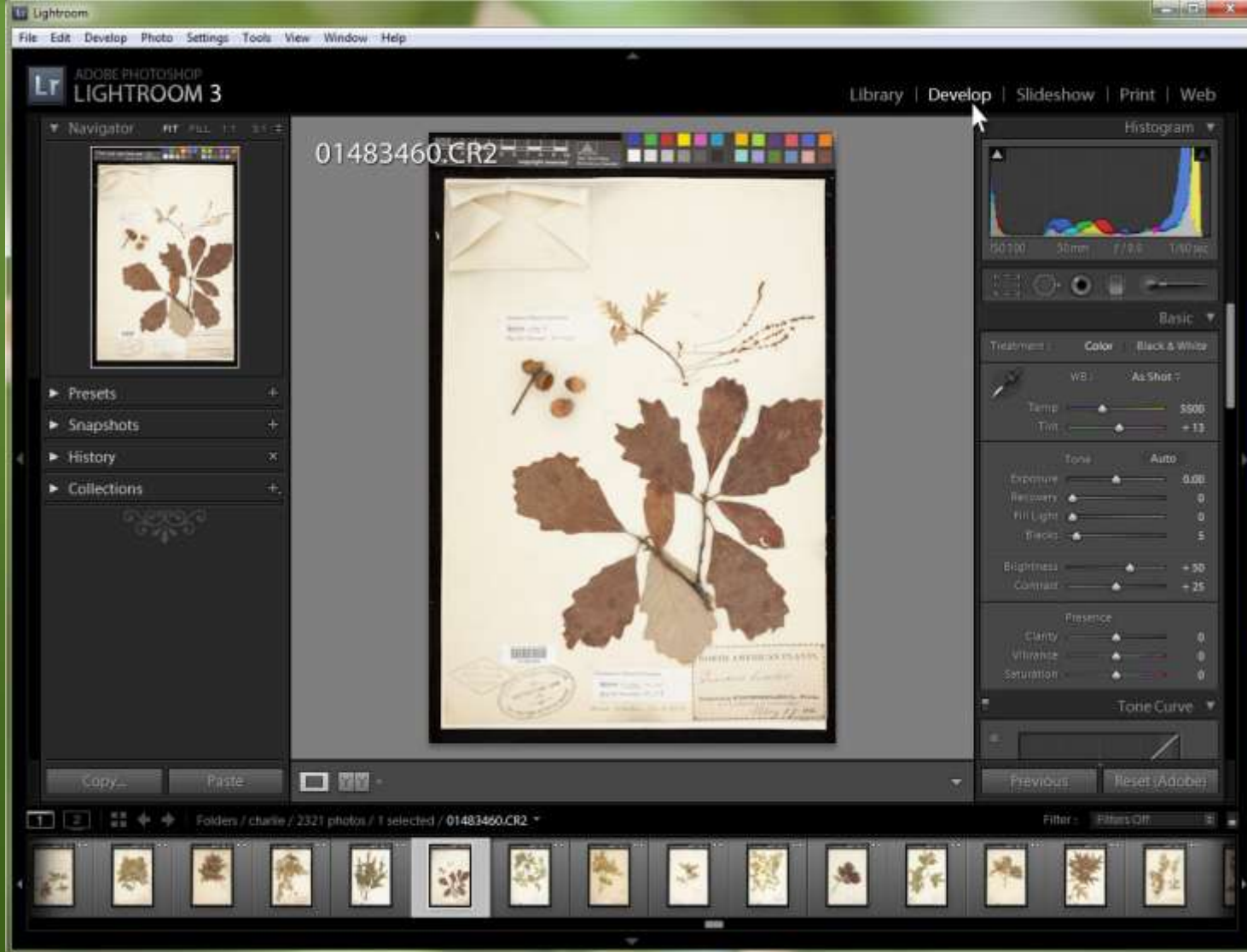
All highlighted images will be rotated.

Editing Images

Editing images takes place in the Develop Module of Adobe Lightroom.

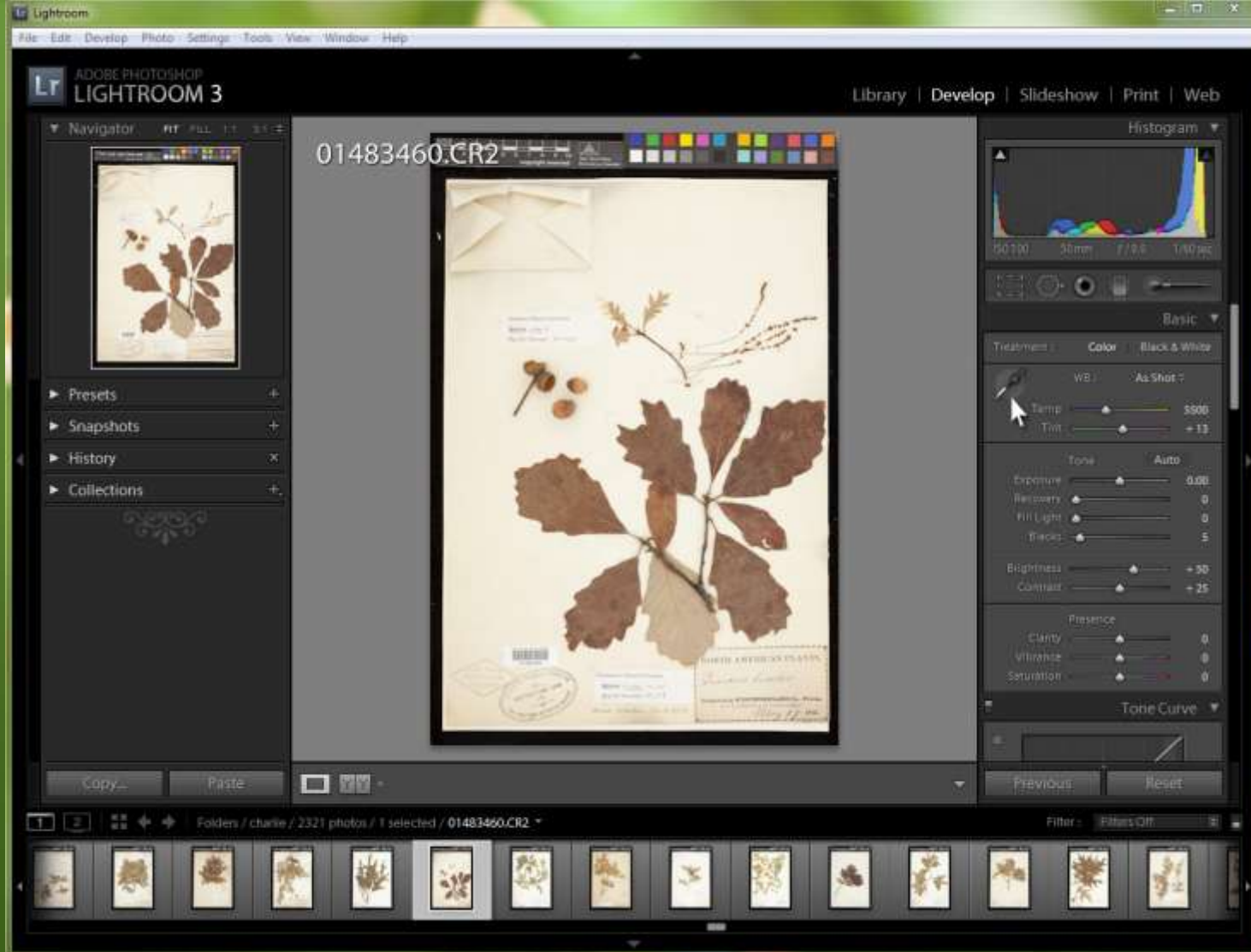
The following steps illustrate how to define a User Preset to automate the development of large batches of images including:

1. White balance
2. Exposure
3. Tone Curve
4. Sharpening
5. Lens Correction



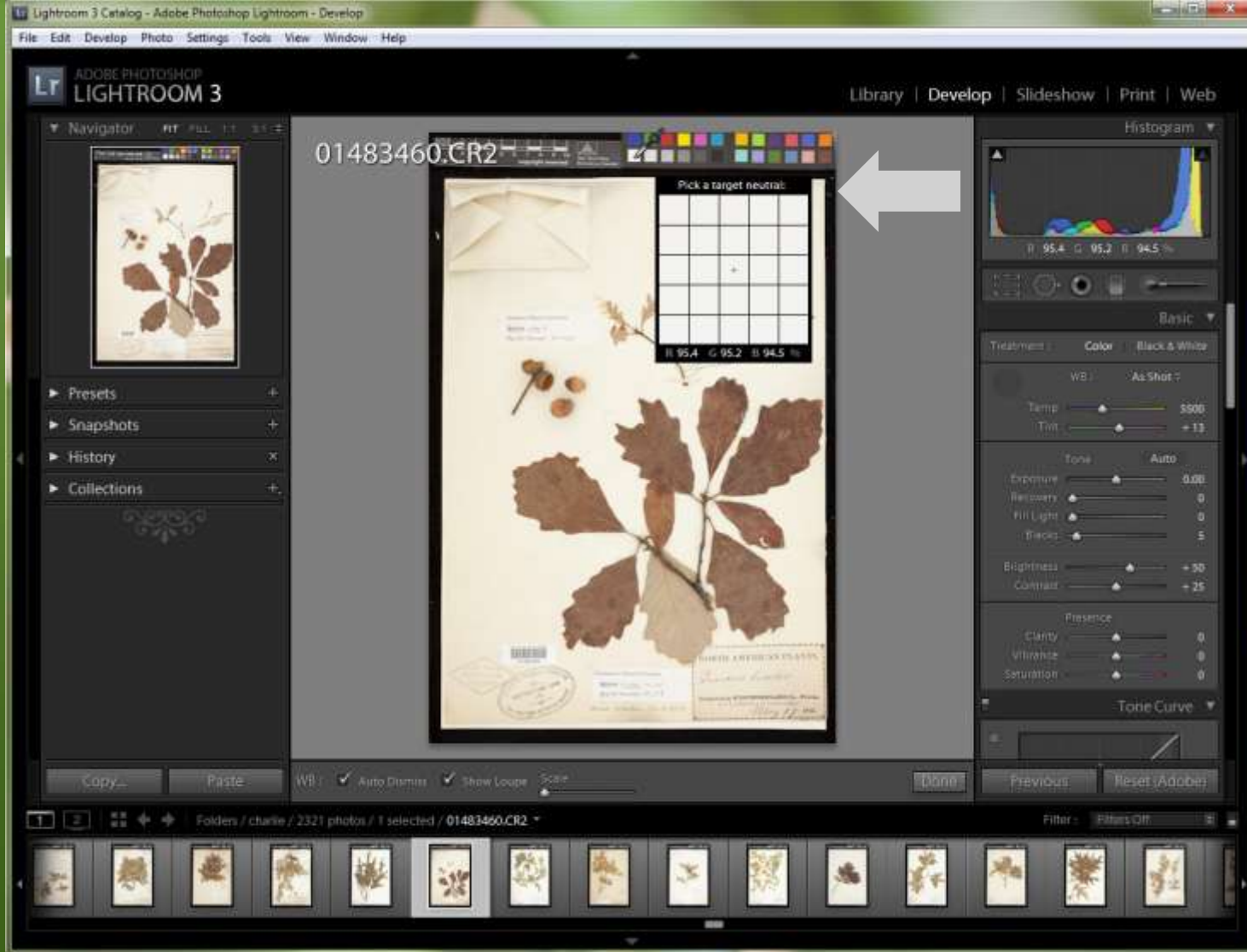
Develop

- Click Develop to enter the Develop module



White Balance

- Click on the eyedropper to select it

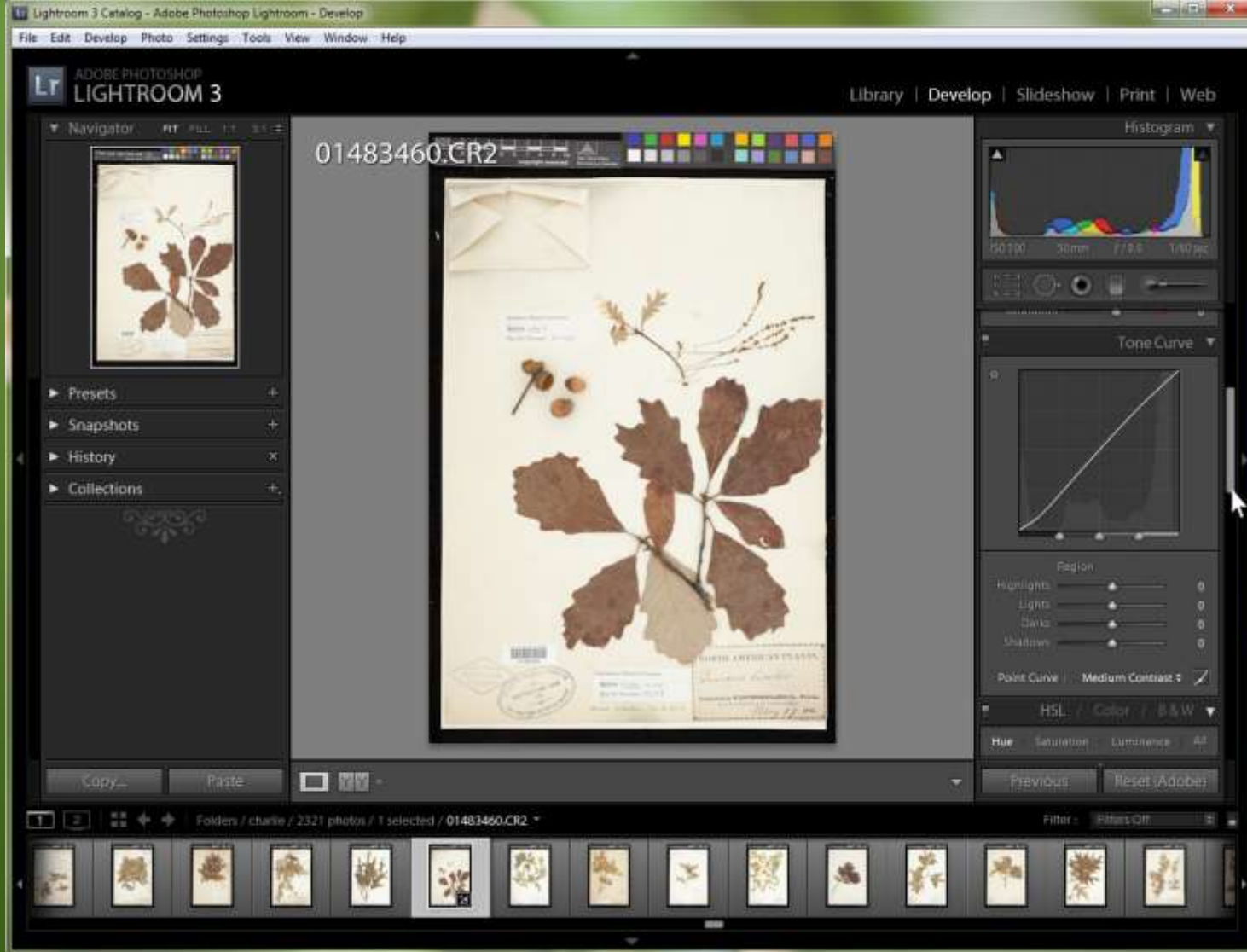


01483460.CR2



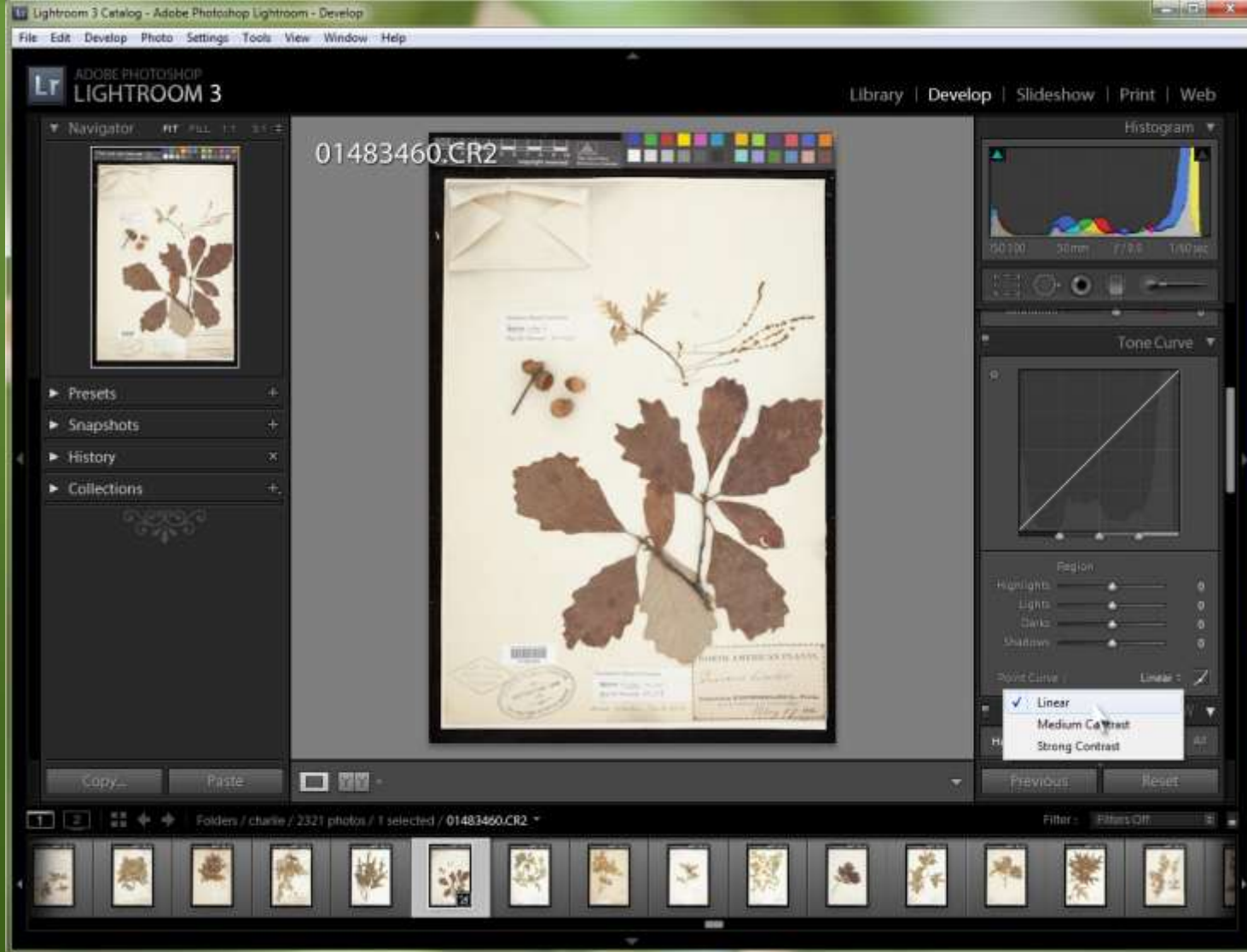
White Balance

- Position the eye dropper over the white reference target and click on it to white balance



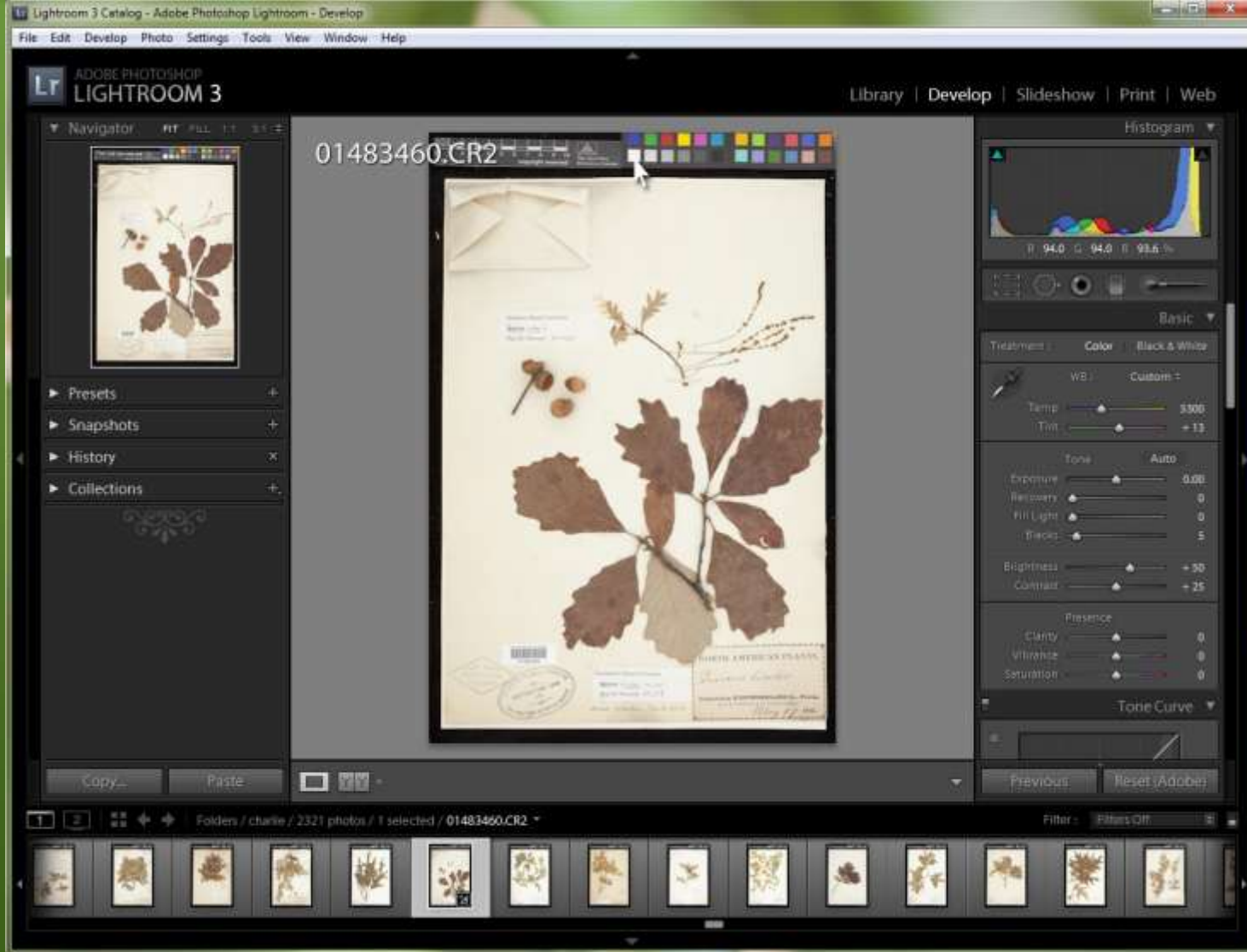
Tone Curve

- Scroll down to the Tone Curve tool



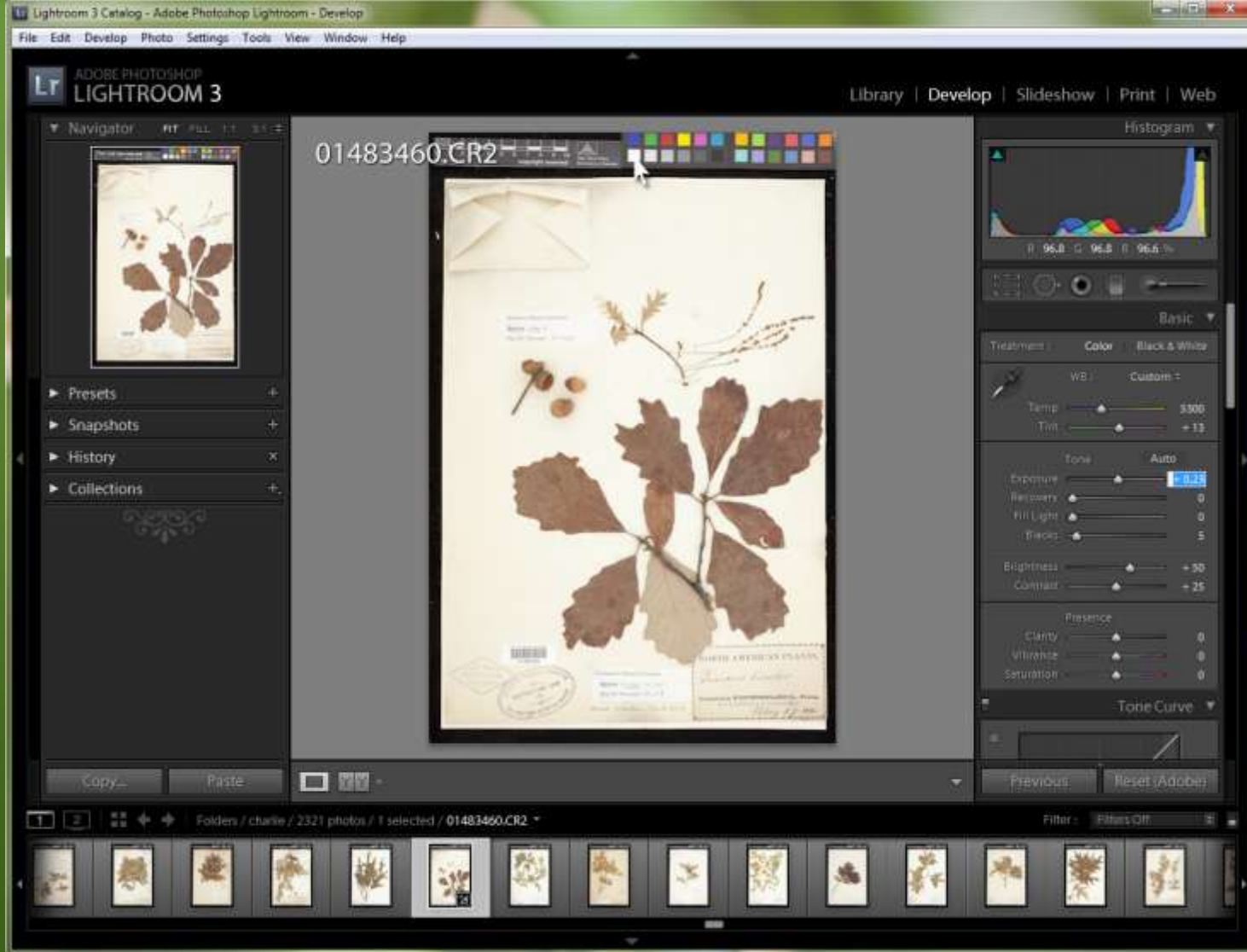
Tone Curve

- Select Linear from the dropdown menu



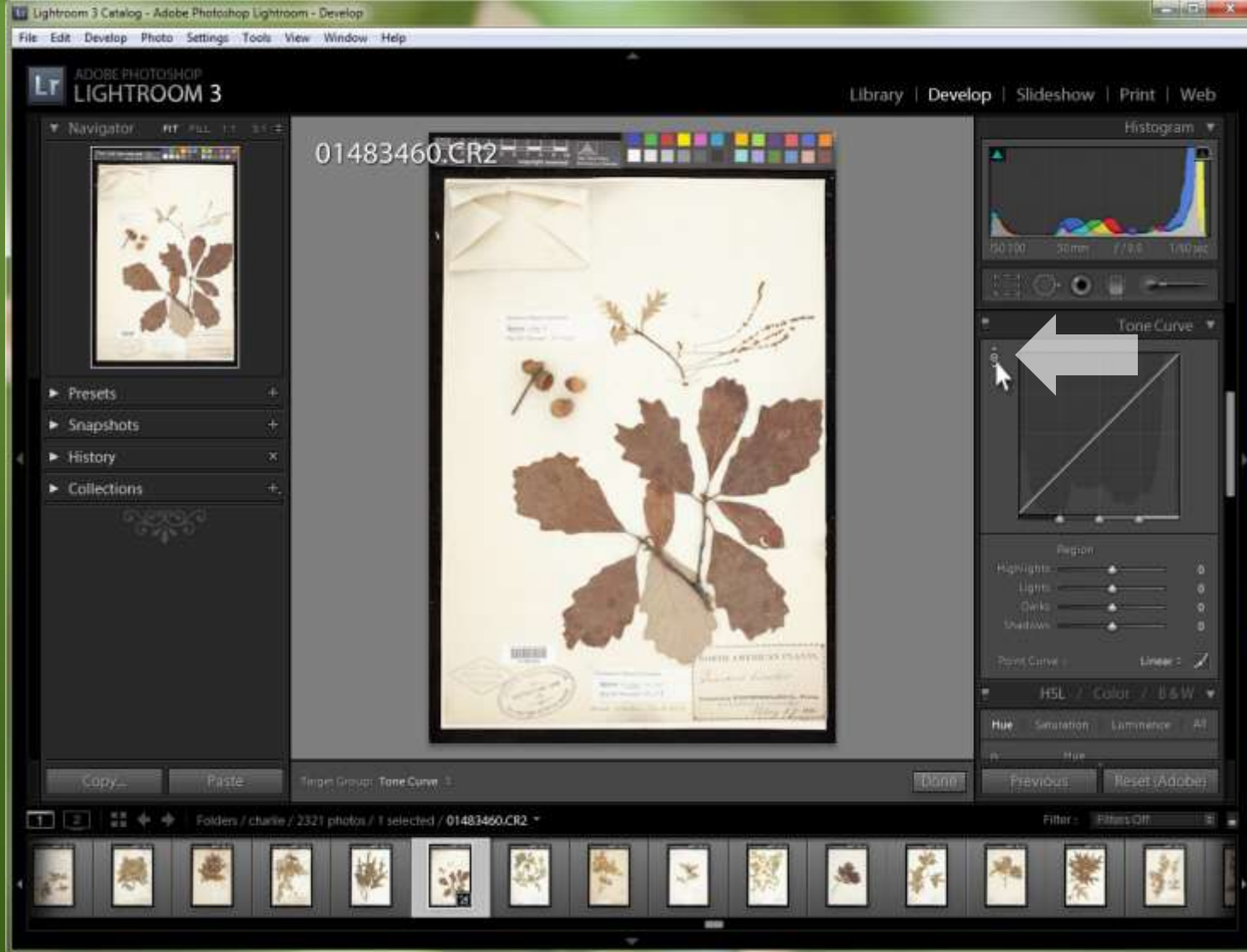
Exposure

- Scroll up to Exposure
- Position the cursor over the white reference target
- Read the RGB values under the Histogram



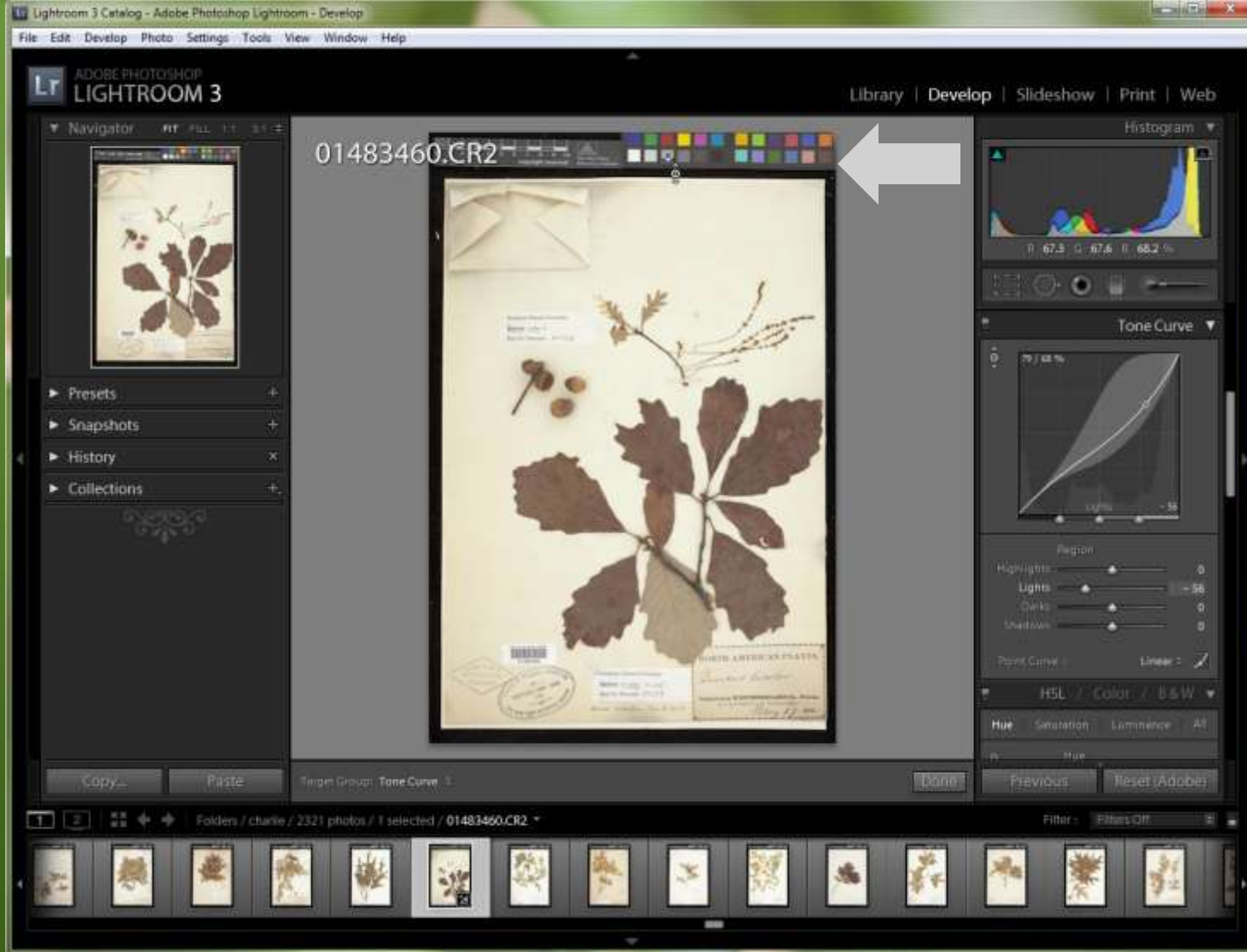
Exposure

- Adjust the Exposure to meet established target values
 - *RGB values of 96.6 are preferable for white*
- Position the cursor over the white reference target to read value changes



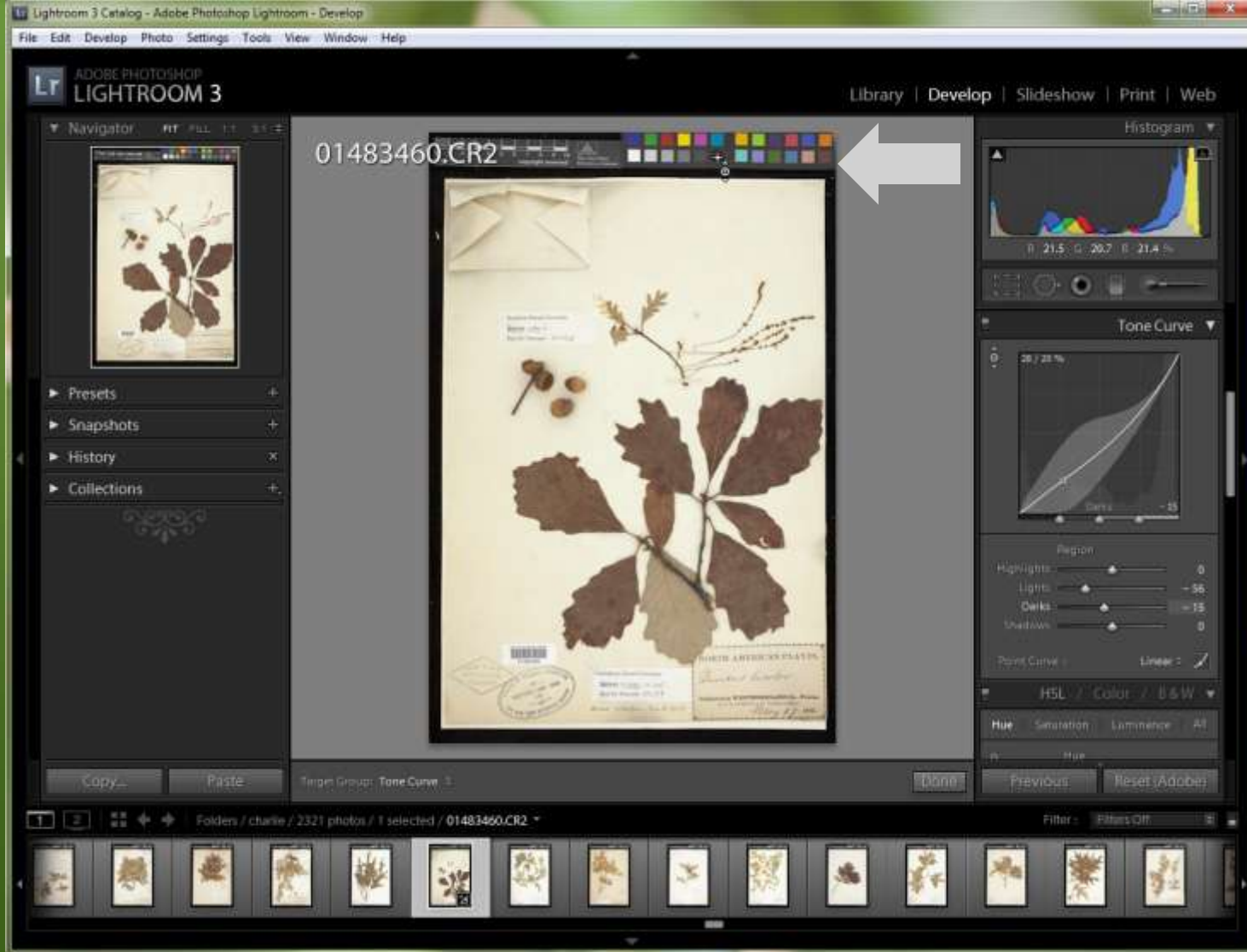
Tonal Adjustment Tool

- Scroll back to the Tone Curve
- Click on the Tonal Adjustment Tool



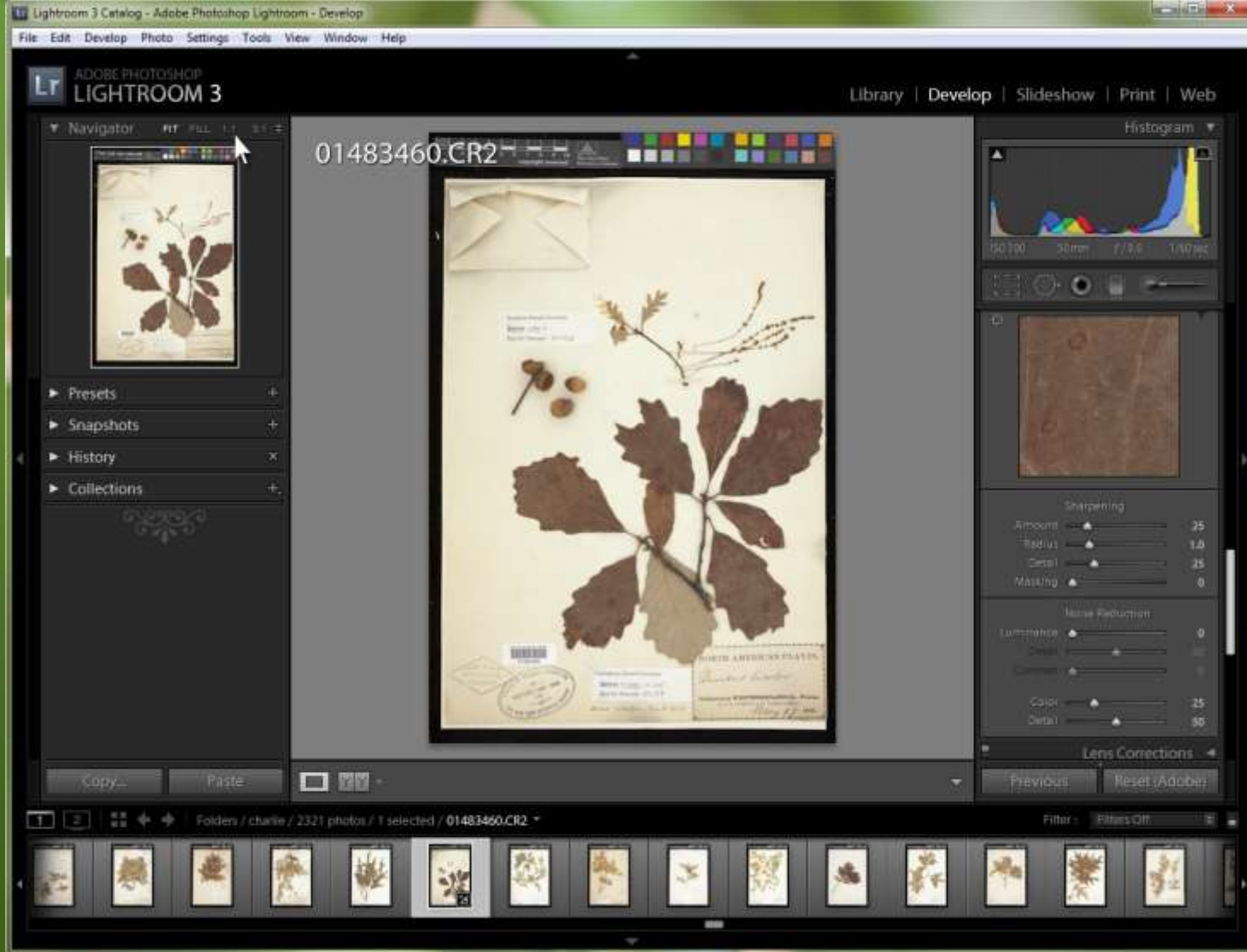
Tonal Adjustment Tool

- Position the tonal Adjustment Tool over the light middle gray reference target
- Click and drag the cursor down until the target value in the Tone Curve window is ~67%
- *The original value is on the left, the target value is on the right (79 / 68%)*



Tonal Adjustment Tool

- Position the tonal Adjustment Tool over the black reference target
- Click and drag the cursor down until the target value in the Tone Curve window is ~20%
- *The original value is on the left, the target value is on the right (28 / 20%)*



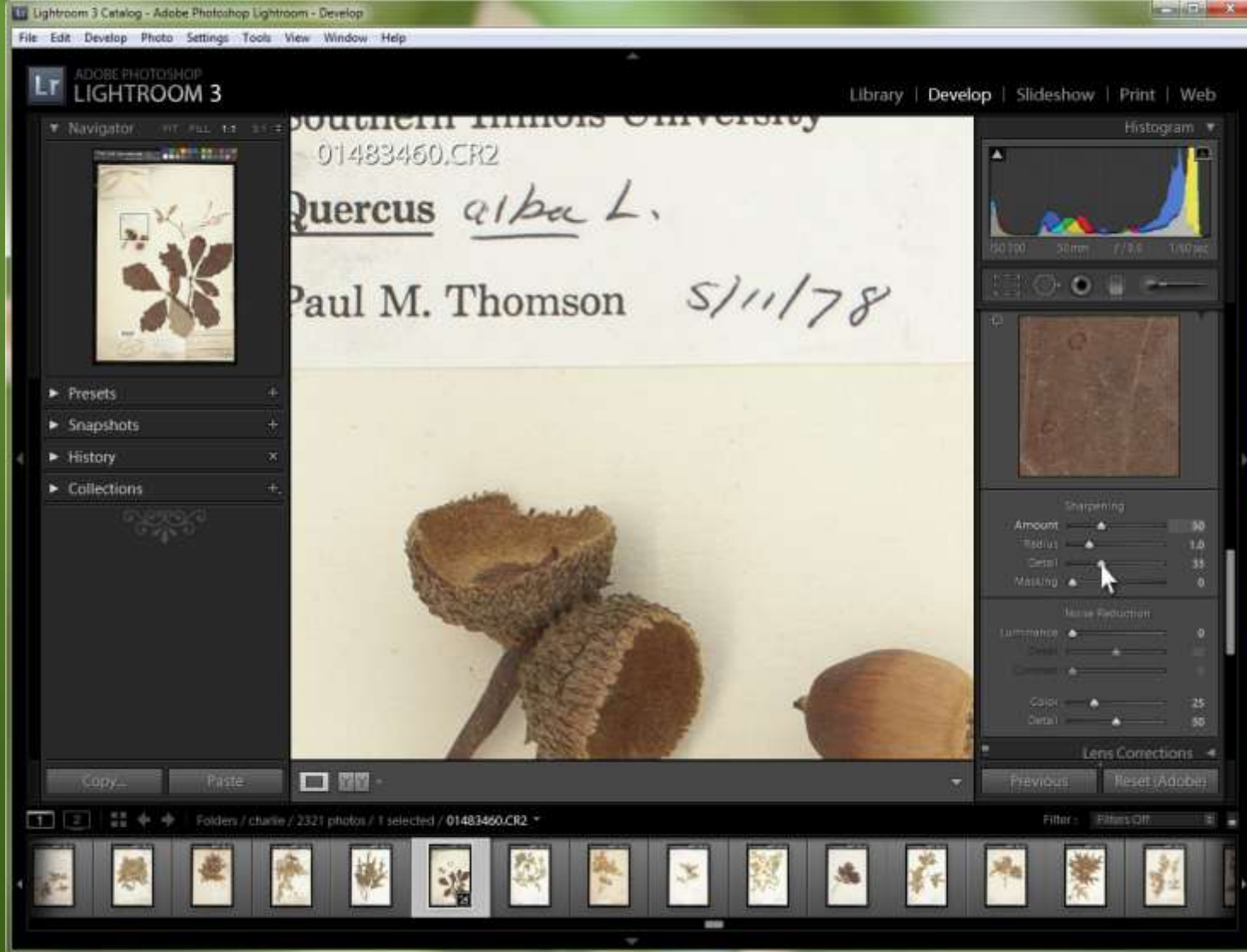
Sharpening

- Scroll down to Sharpening



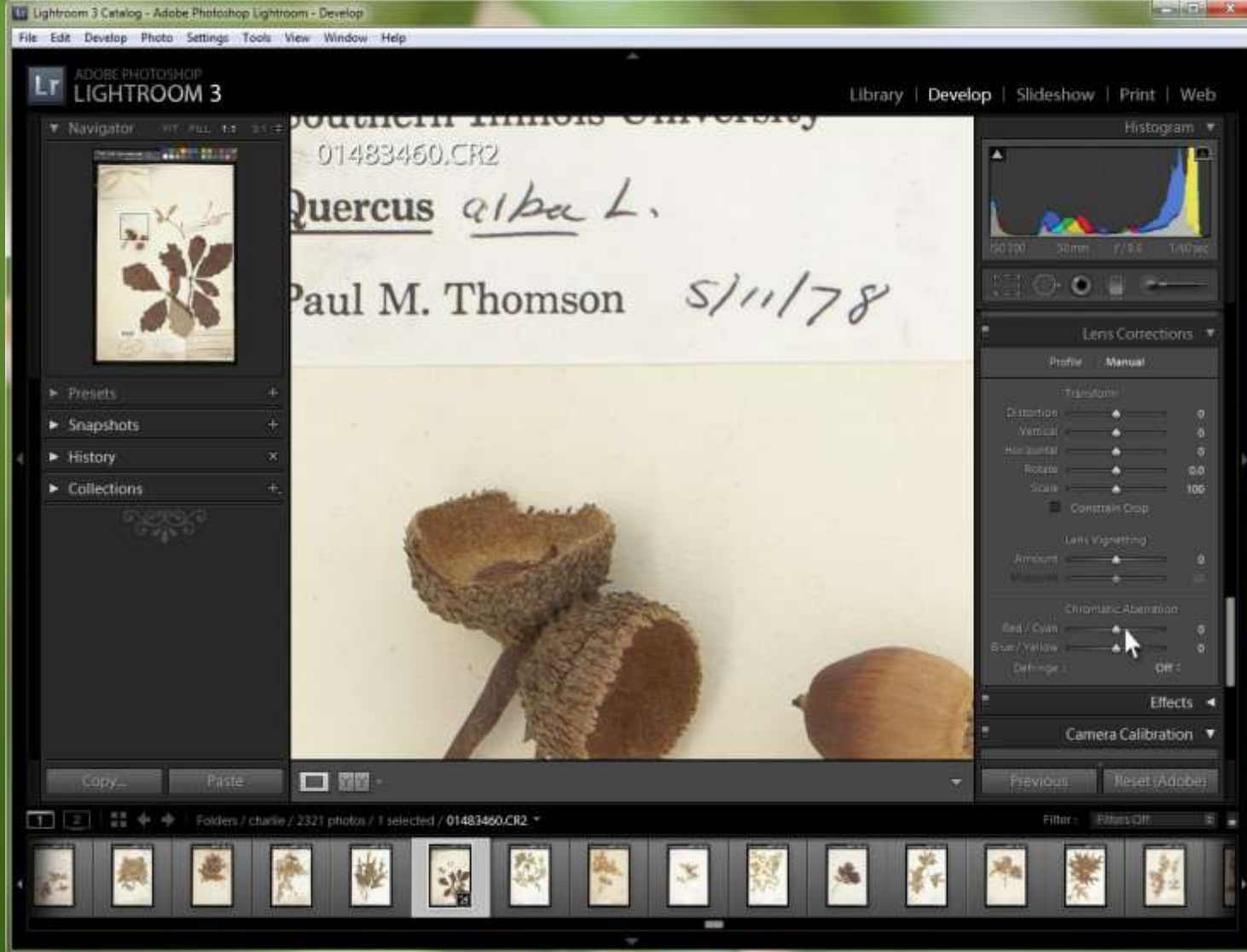
Navigator

- Set the view to 1:1 in the Navigator to evaluate sharpness



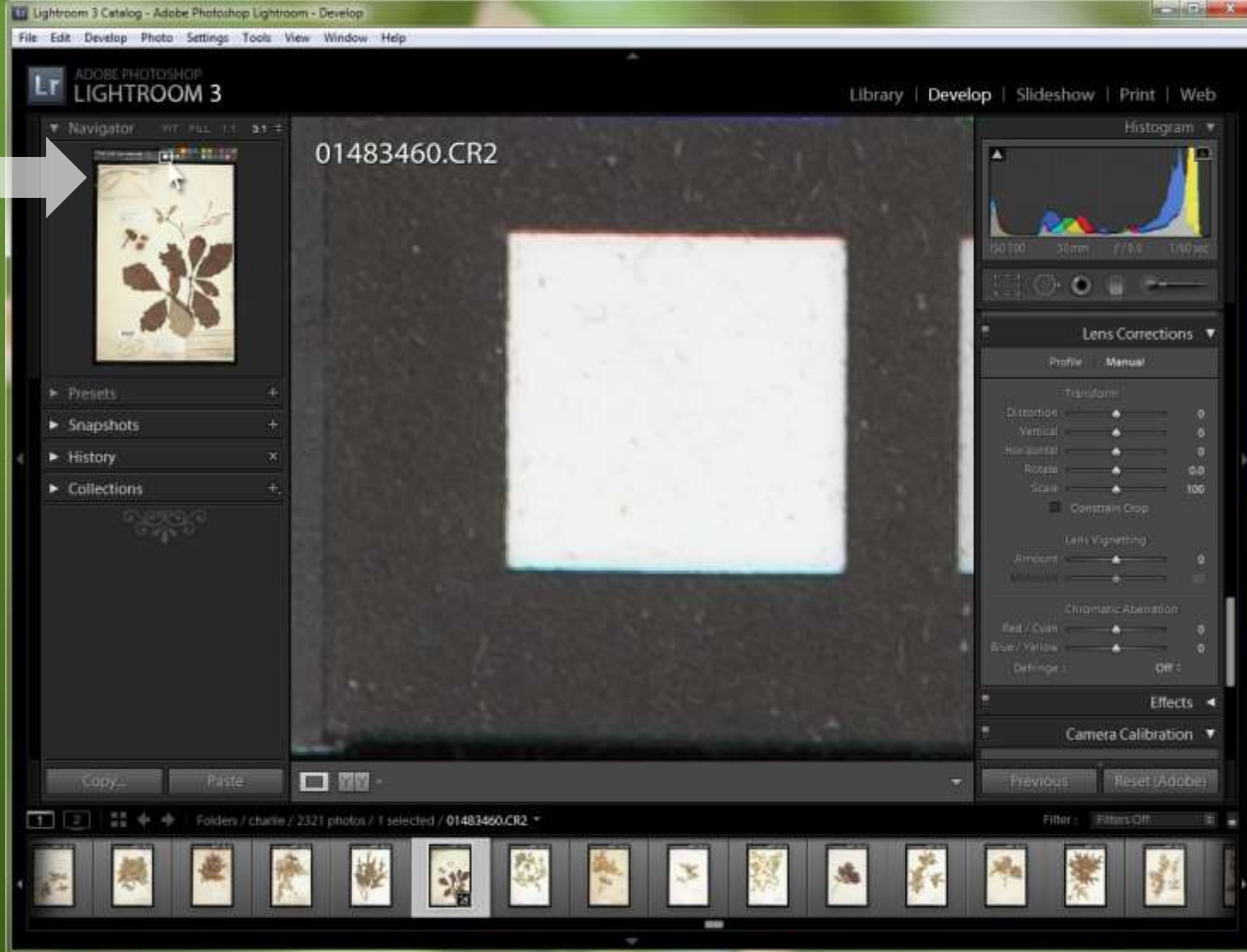
Sharpening

- Adjust sharpness to taste
- Over sharpening causes visible artifacts
 - *Amount 50, Radius 1.0, Detail 33 is a good conservative adjustment*



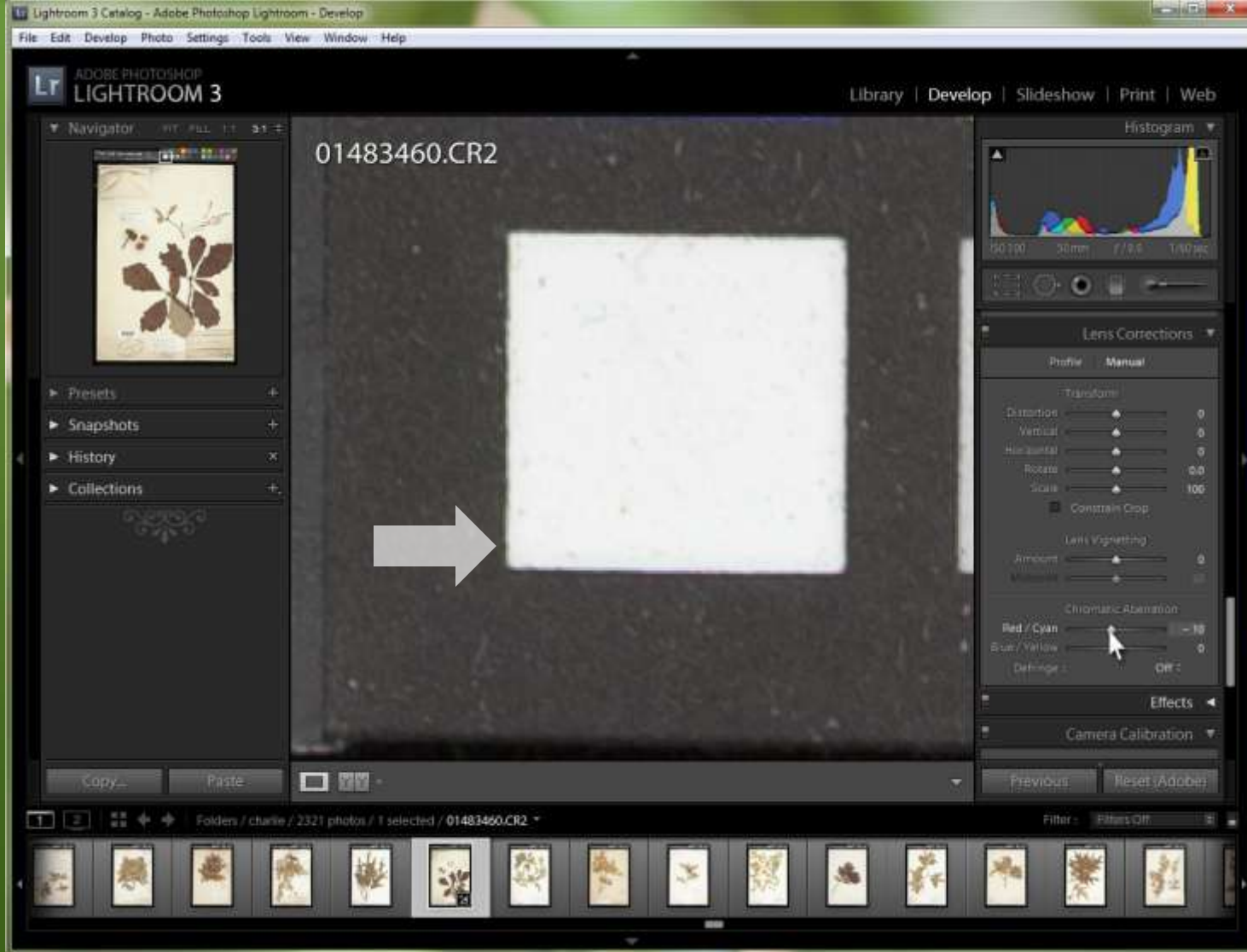
Lens Corrections

- Scroll down to Lens Corrections
- Click to select Manual



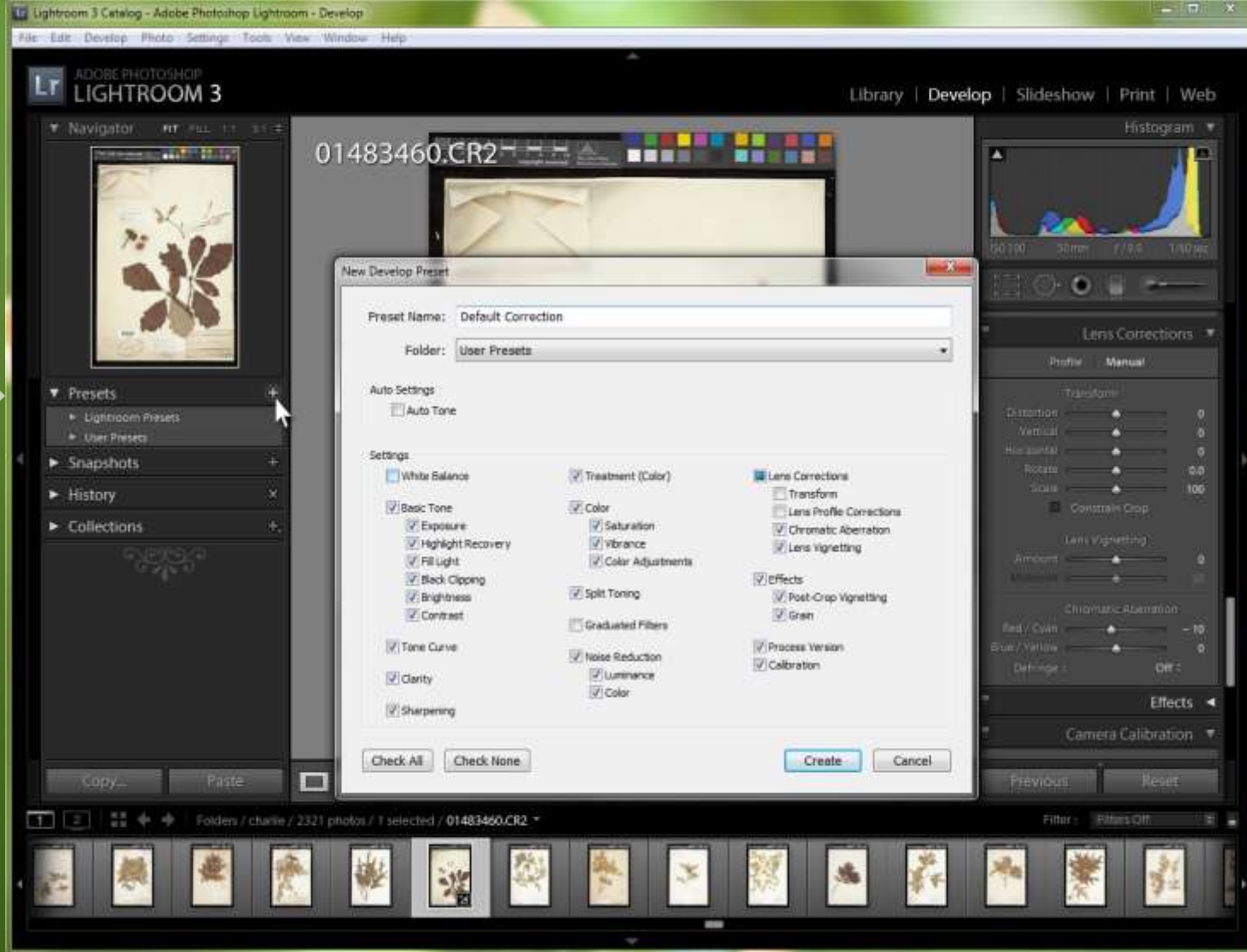
Lens Corrections

- Above the Navigator, set the magnification to 3:1
- Use the Navigator to find an area of high contrast
 - *The white reference target works well for this*



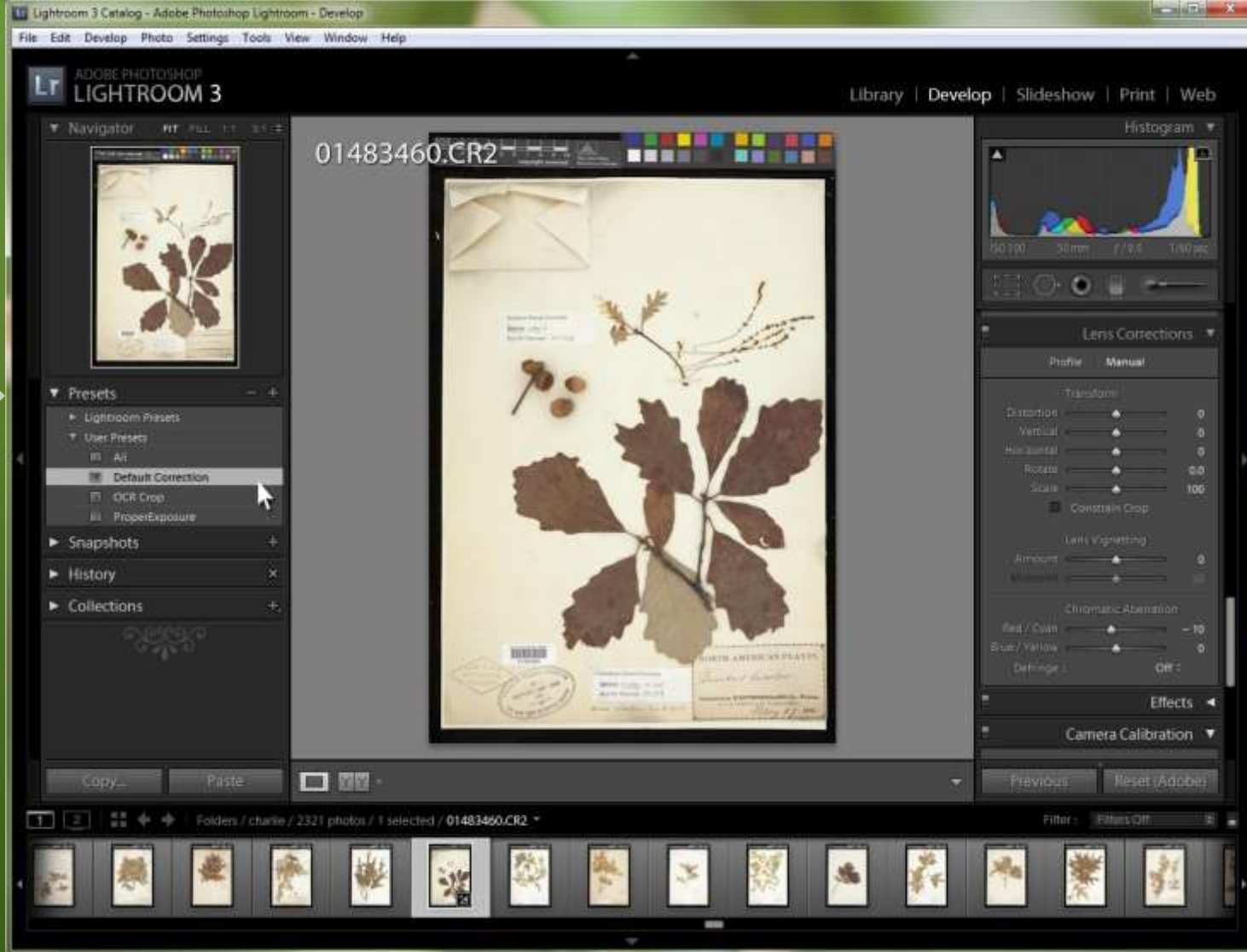
Chromatic Aberration

- Adjust the Red/Cyan slider to minimize color fringing
- -10 works well for Canon cameras using EF 50mm Macro lenses



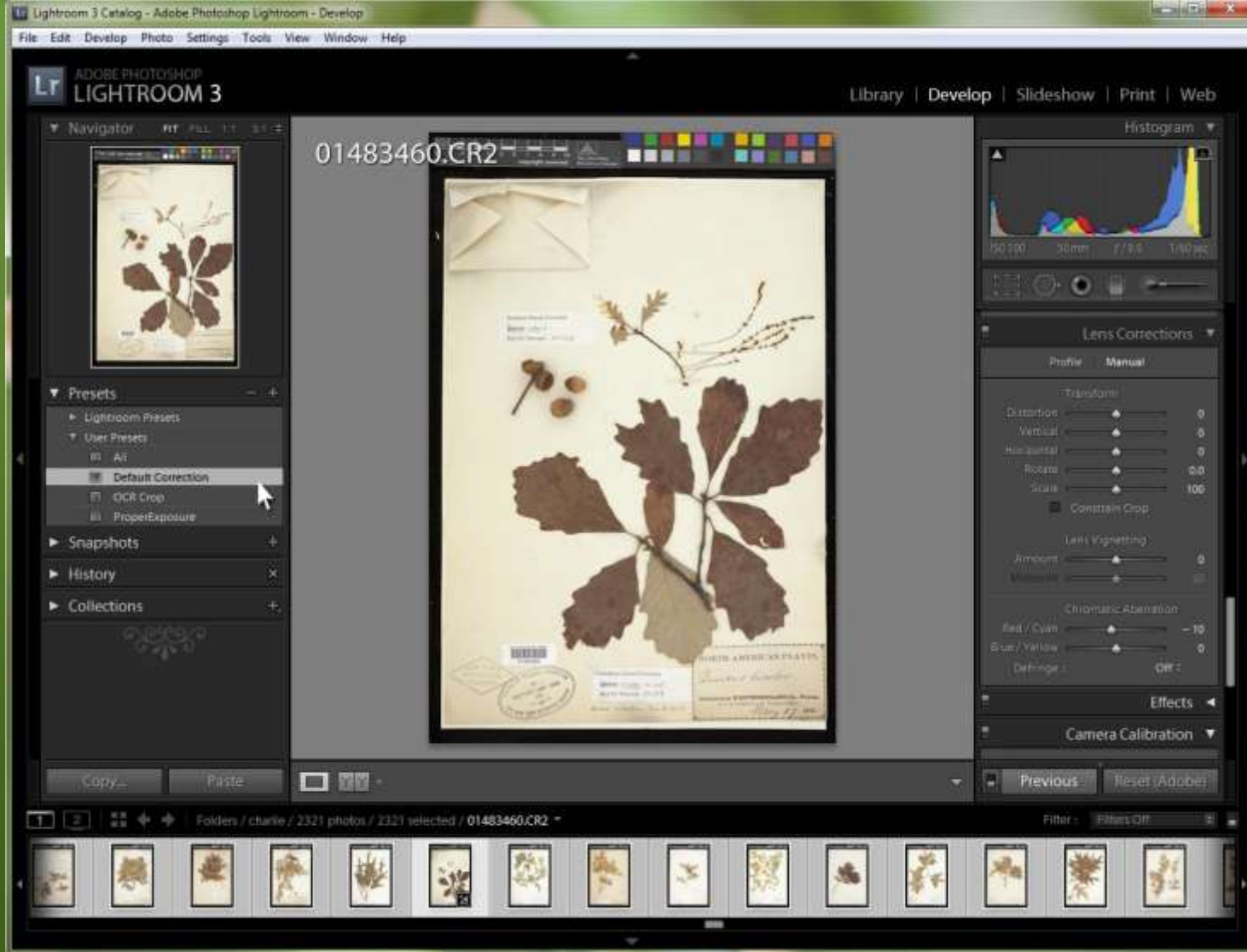
Save adjustments as a Preset to apply to future images.

- Click the + symbol to save adjustments as a Preset
- Checked adjustments will be saved
 - *Uncheck White Balance, it's good practice to white balance individual batches of images*



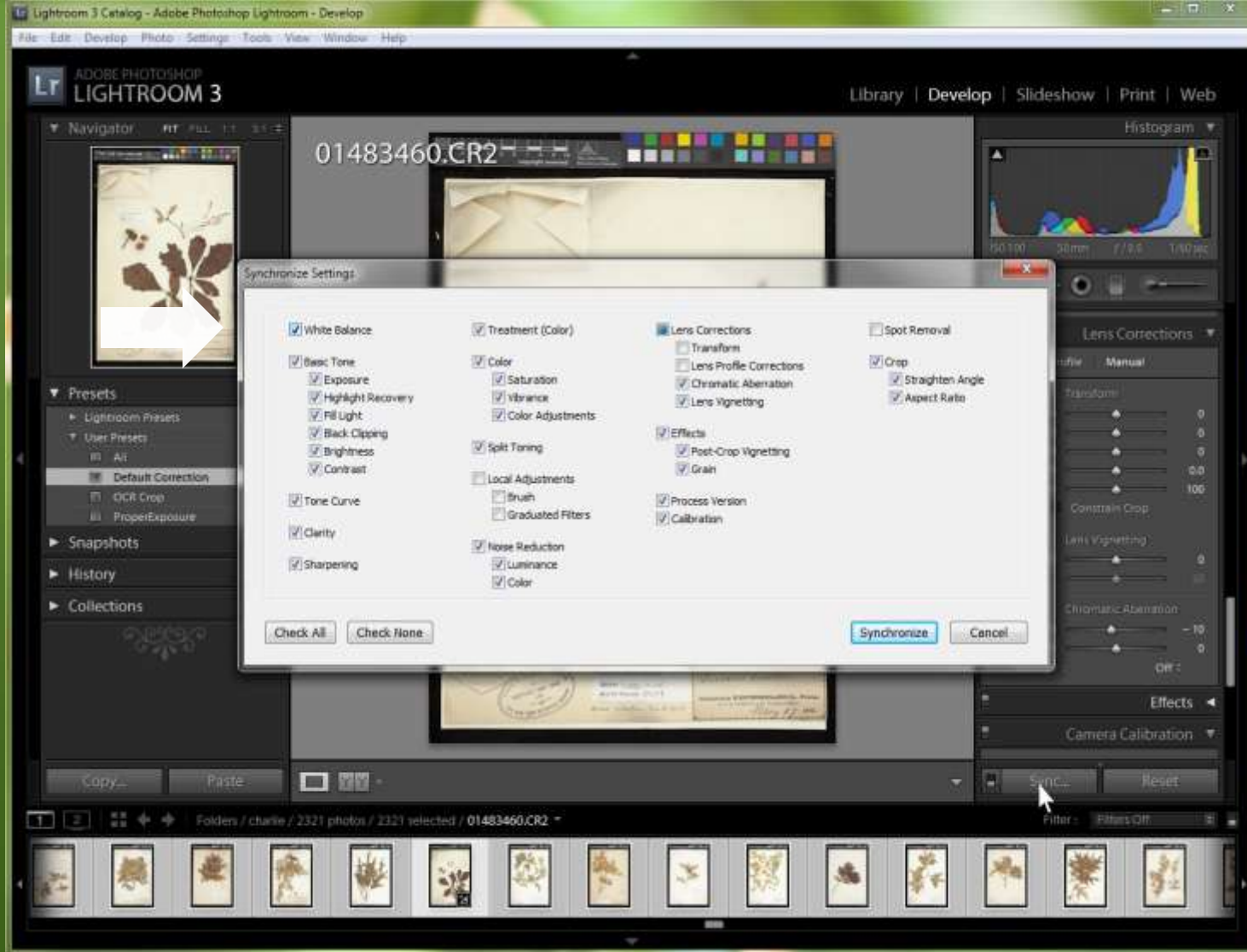
Apply Presets to future images.

- Select a thumbnail
- White balance the image
- Click on the saved Preset



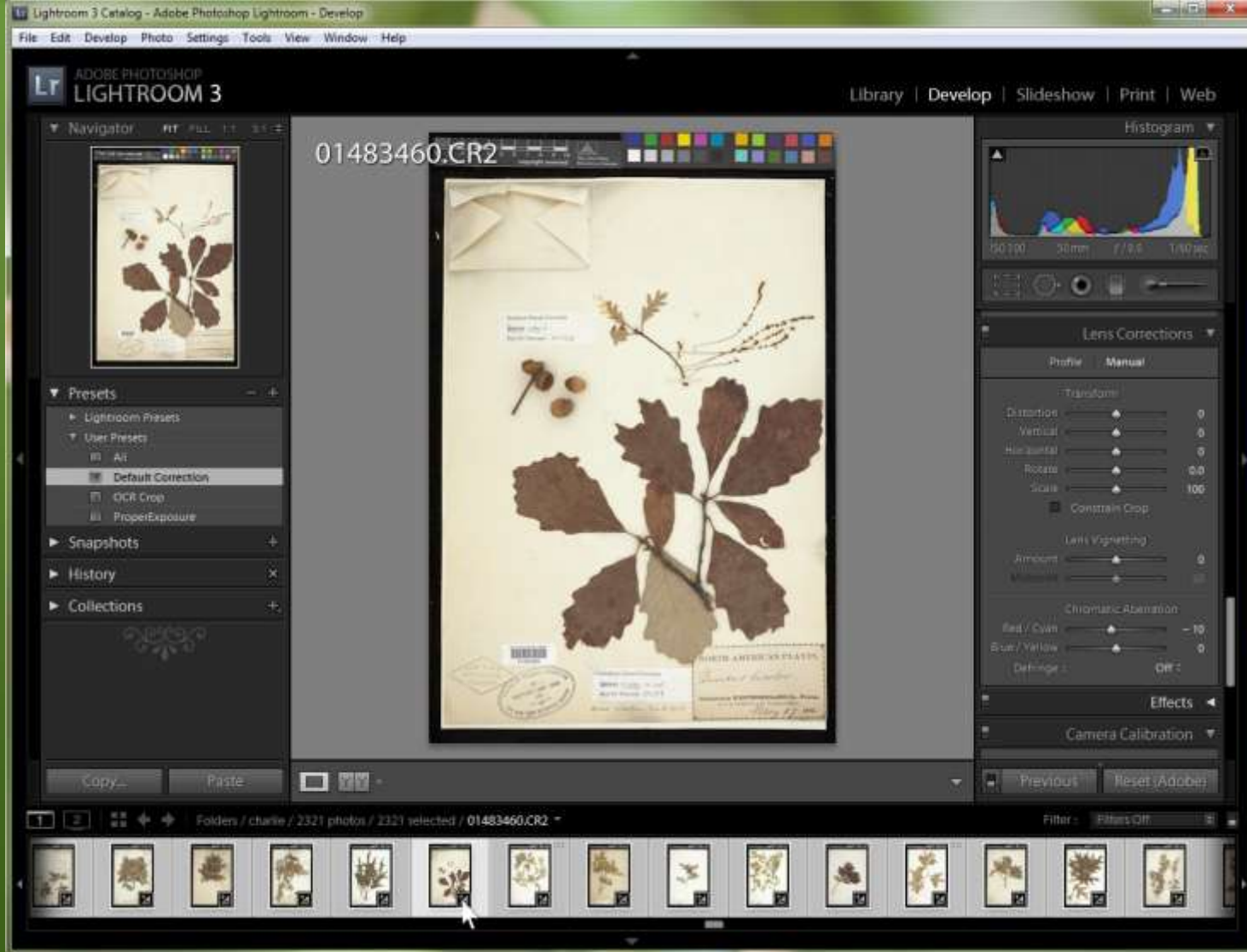
Batch apply edits

- With the edited image selected, Select All thumbnails (Ctrl+A)
 - The edited image has a +/- symbol on the thumbnail
 - The edited image must be the source image - it will have a brighter highlight than the rest of the selection



Synchronize

- Press the Sync... button to open the Synchronize Settings window
- Make sure to check the white balance box to apply batch white balance
- Press the Synchronize button



Synchronize

- All the thumbnails have the +/- symbol, indicating that they have been edited



Now that the images are edited, they can be exported in other formats. Click on Library to return to the Library module.

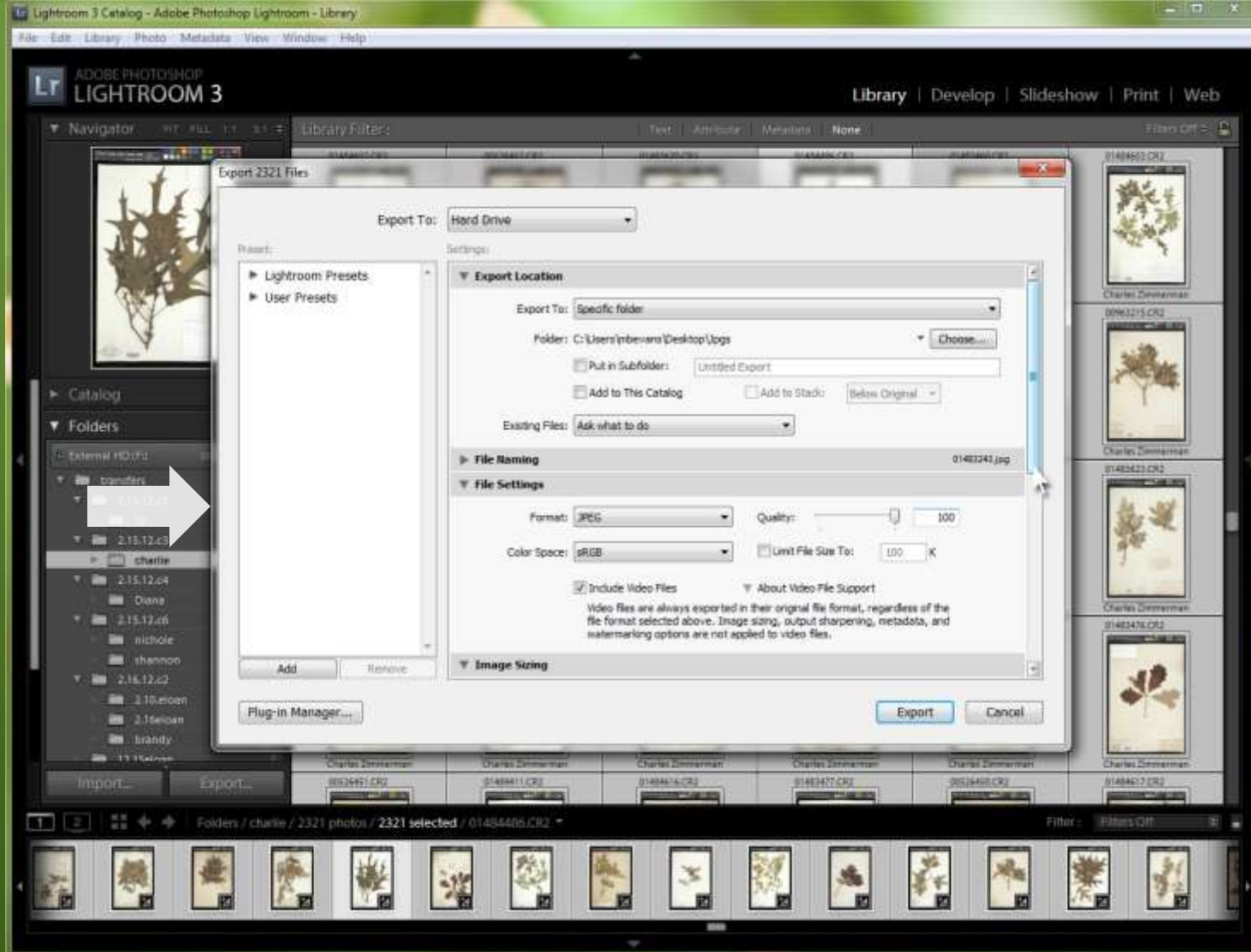
Exporting Images

As previously mentioned, image edits are stored as catalog data by Lightroom and do not get applied to the original image.

Export the images in order to save edits in various file formats, such as Jpegs for online access or DNG for archival purposes.

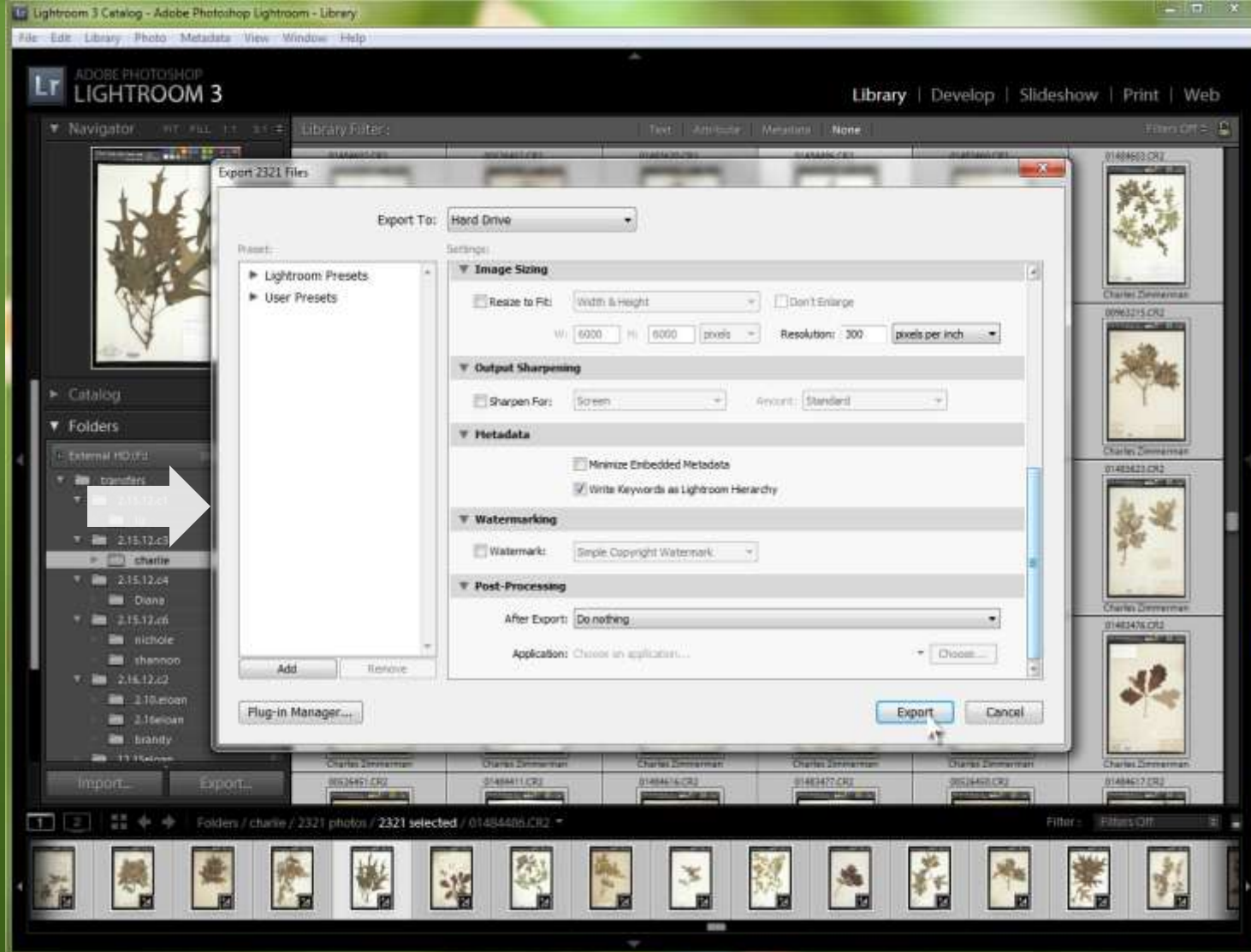


With all of the thumbnails selected, press the Export button.



Export Jpegs

- Under Location, select a destination folder for the edited images
- Under File Settings, select Format: Jpeg, Color Space: sRGB, Quality: 100

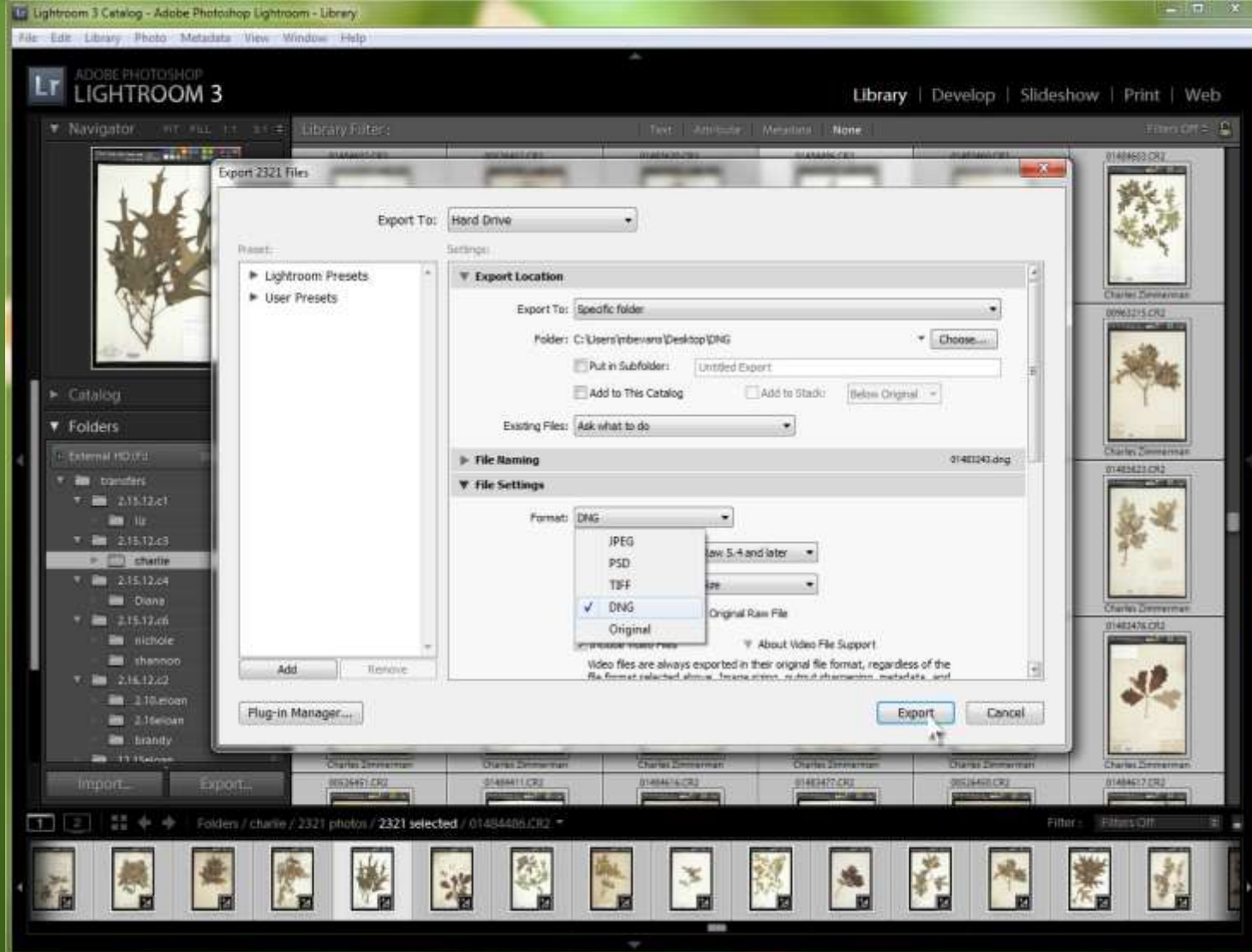


Export Jpegs

- Scroll down for addition options
- Under Image Sizing, set Resolution: 300 pixels per inch
- Press the Export button



Edited images will be saved to the selected destination folder. A status bar in the upper left hand corner indicates the progress.



Export DNG

- Repeat the Export steps to export DNG files for archiving
- In the Export window, under Export Location select a destination folder
- Under File Settings, select Format: DNG
- Press the Export button

Continuing Discussion

For additional information and discussion of these image editing and archiving practices, please visit www.digitalphotorepro.blogspot.com