# Adopt a Pixel Help Document

Adopt a Pixel is a citizen science program that engages the public in collecting landscape photographs for scientific research. The science community has easy access to Landsat satellite data but has limited resources for acquiring ground reference photographs to verify land cover type. The goal of Adopt a Pixel is to acquire ground-based photographs to improve satellite data interpretation for operational and research science. Photographs from volunteers provide scientists with ground-based landscape data that would be too expensive or time consuming to acquire by other means.

Volunteers can share their land cover photographs and participate in the Adopt a Pixel program by taking photographs from a single point facing North, South, East, West, Up, and Down to capture landscape features in all directions. The interface requires six images of the terrain, latitude, longitude, and land cover classification. Field observations and any notable comments about conditions, patterns, or changes can also be included as keywords.

## 1. Registration and Login

Adopt a Pixel utilizes the USGS EROS Registration System (https://ers.cr.usgs.gov/). New users need to create an account to gain access to the Adopt a Pixel interface. The ERS Help Document has step-by-step instructions on the registration process.

Contact Customer Services at lta@usgs.gov or (605) 594-6151 if you have any problems with the registration process. The Feedback link on the top toolbar can also be used to request assistance or to report errors.

Enter your username and password then click the Sign In button.

## 2. Upload Images

Images can be up loaded by clicking on a direction and selecting the corresponding file from your image directory. Upload all six images.

Another option is to open the directory for your images then drag and drop the image onto the corresponding direction. The New/Clear button can be used to start over if an image lands on the wrong direction.

## 3. Enter Metadata

Select the Land Cover Type from the pull down list.

The Latitude and Longitude will automatically be populated if the image has embedded coordinates. Coordinates that are entered manually need to be in decimal degrees with a valid range of ± 90.00000 for latitude and ± 180.00000 for longitude. Negative values are used for South and West. Use as many decimal places as possible.

A set of photos with latitude of 41.457 north would be entered as 41.457 and longitude of 96.016 west would be entered as -96.016.

The Date Taken, Time Taken, and Time Zone will automatically populate.

Enter any Keywords to describe the land cover – this field will accept up to 200 characters. Separate items with a comma. Examples of string of Keywords are forest, ponderosa pine, ferns, oak understory; urban growth, new construction, mechanical disturbance;  or desert, red rocks, cactus, prickly pear, juniper.

## 4. Submit

Click the Submit button at the bottom. A message will appear to indicate that the record has been submitted.

The New/Clear button at the upper left can be used to clear the images and metadata.

EarthExplorer (http://earthexplorer.usgs.gov/) can be used to search, preview, and download approved Adopt a Pixel images. The collection is located under the Land Cover category.