Help file: original scraper mass calculator v.1.0.0

Article: Scraper original mass: a different approach and its wide range implementation

1. Variables used to calculate scraper original mass:

Four variables are used to calculate original scraper mass calculator.

1) **Scraper mass:** measured in grams with a 0.01 precision.
2) **Maximum thickness of the scraper:** measured in mm with a precision of 0.1.
3) **Average height of retouch:** measured in mm from different points of retouch. An example can be observed at Figure 1.
4) **GIUR value:** as the average of the individual GIUR values measured. An example can be observed at Figure 1.
   The value of this variable must range between 0 (unretouched flake) and 1 (retouch reaches the dorsal surface of the scraper).

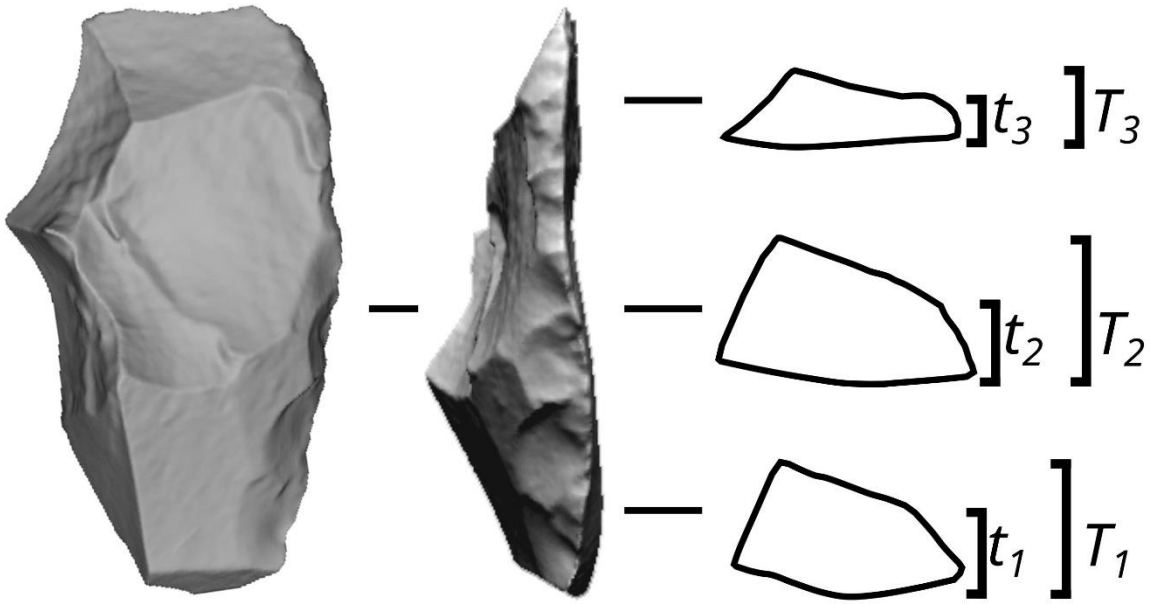

Figure 1. Example of measurement of height of retouch (*t*) and the corresponding thickness of the scraper in order to calculate GIUR values. Final GIUR (sometimes referred as AIUR; Clarkson, 2002) value is calculated as the average from each individual GIUR.

2. Making batch predictions from a CSV file

Currently two requisites are necessary for batch processing of data at the Original Scraper Mass Calculator:

1. The file containing the data must be a CSV.
2. Column names should much the ones used to train the Random forest. These column names must be:
    a. Rem.Weight.
    b. Mean.t
    c. Max.thick
    d. GIUR

A sample CSV with the correct column names can be downloaded from the Original Scraper Mass Calculator app (Figure 2).

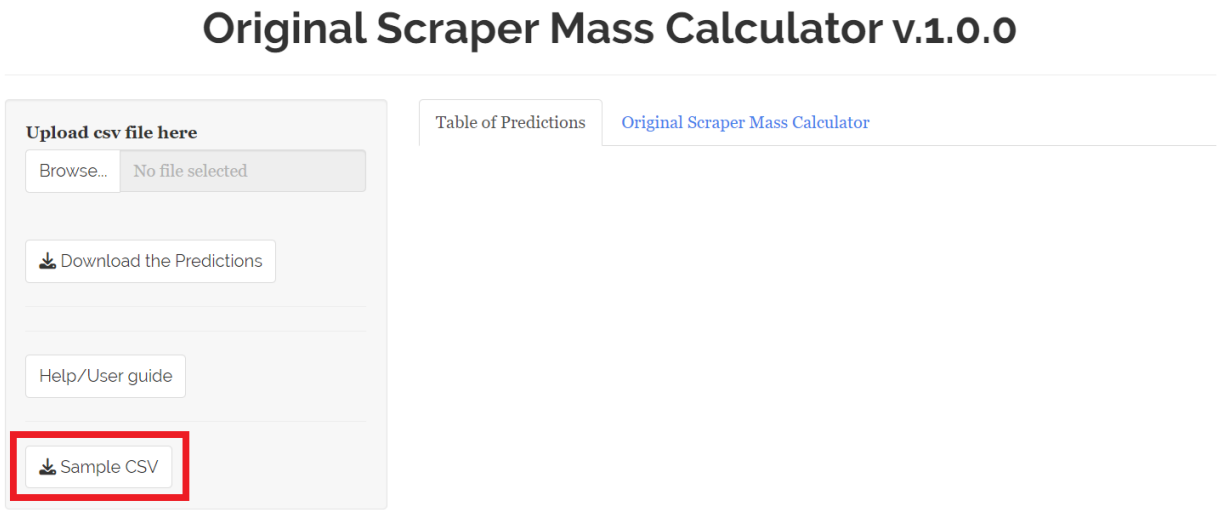

Figure 2. Initial interface of the OSMC with the option to download the sample CSV highlighted.

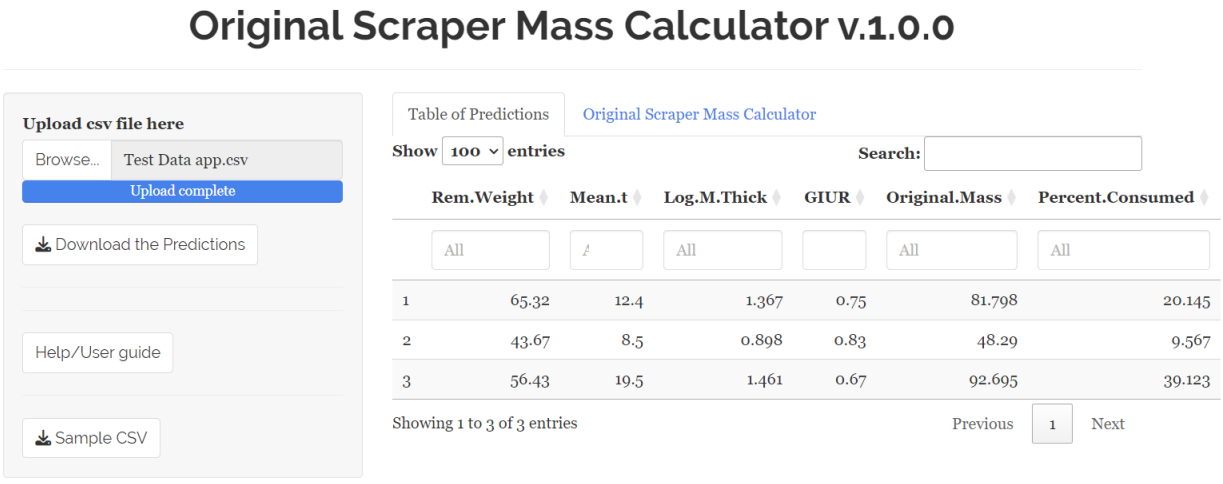

Figure 3. Example of an uploaded CSV file and predictions displayed as a table

Once the CSV file is ready, it can be uploaded to the app. Random forest predictions are automatically computed and displayed as a table and a CSV file with the predictions can be downloaded (Figure 3).

3. Making predictions by individually introducing the data

The Original Scraper Mass Calculator allows to manually introduce the data of a scraper. After this, it is enough with pressing the "Calculate original mass" button and predictions are displayed at the bottom (Figure 4).

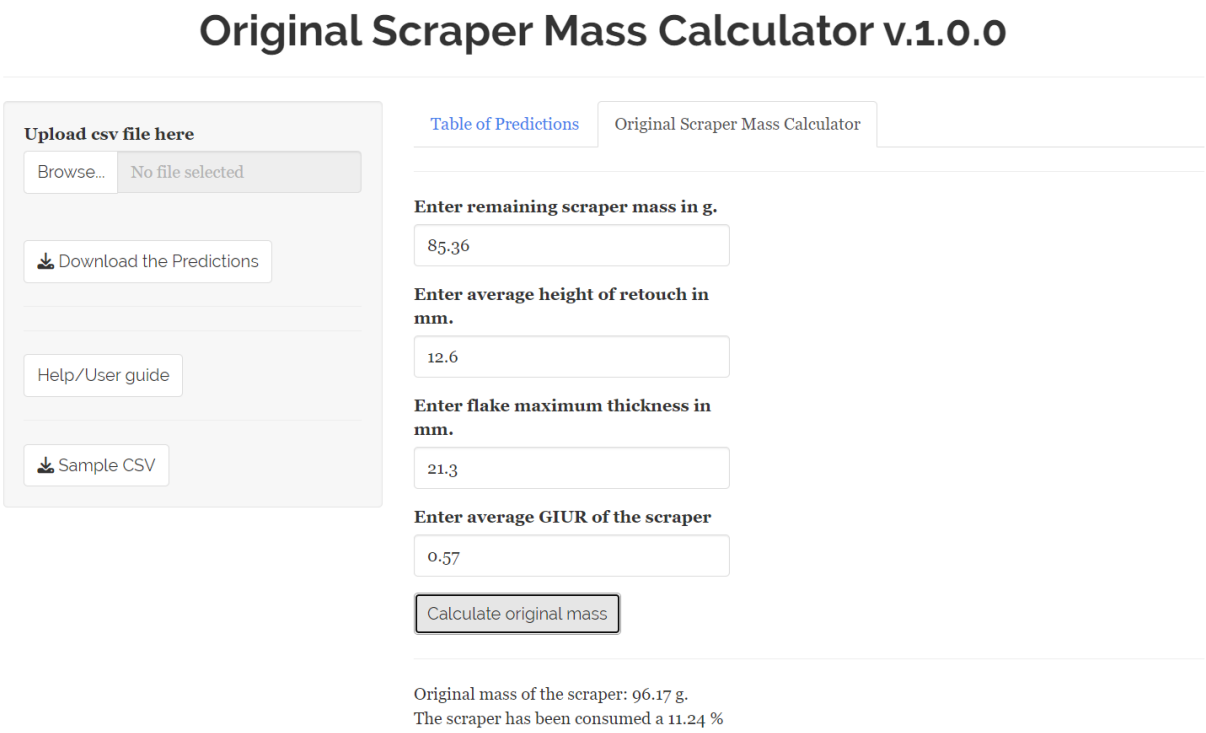

Figure 4. Example of manually introducing the data to obtain calculations