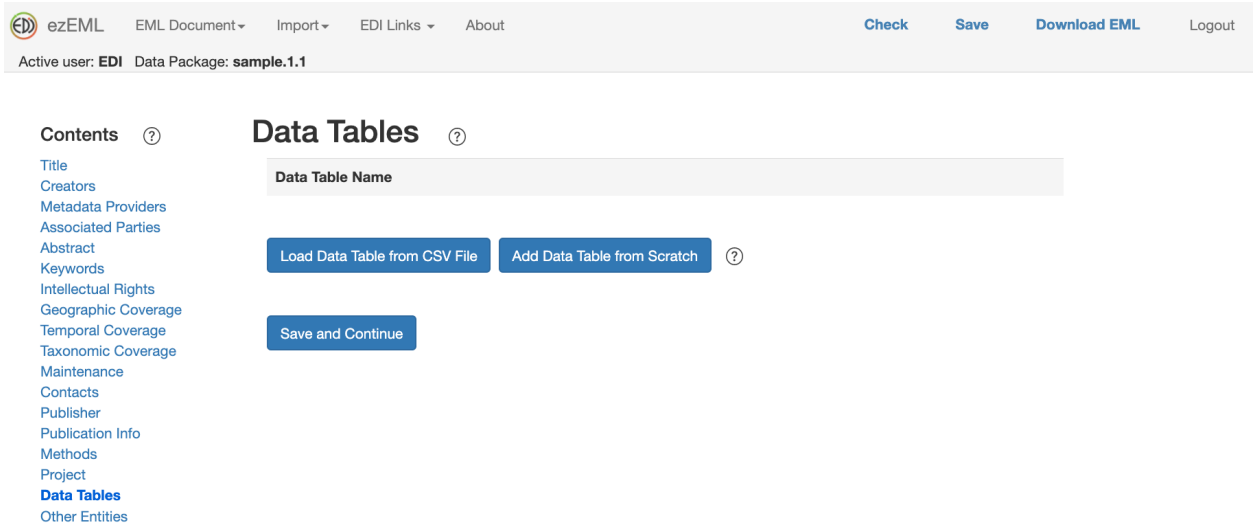
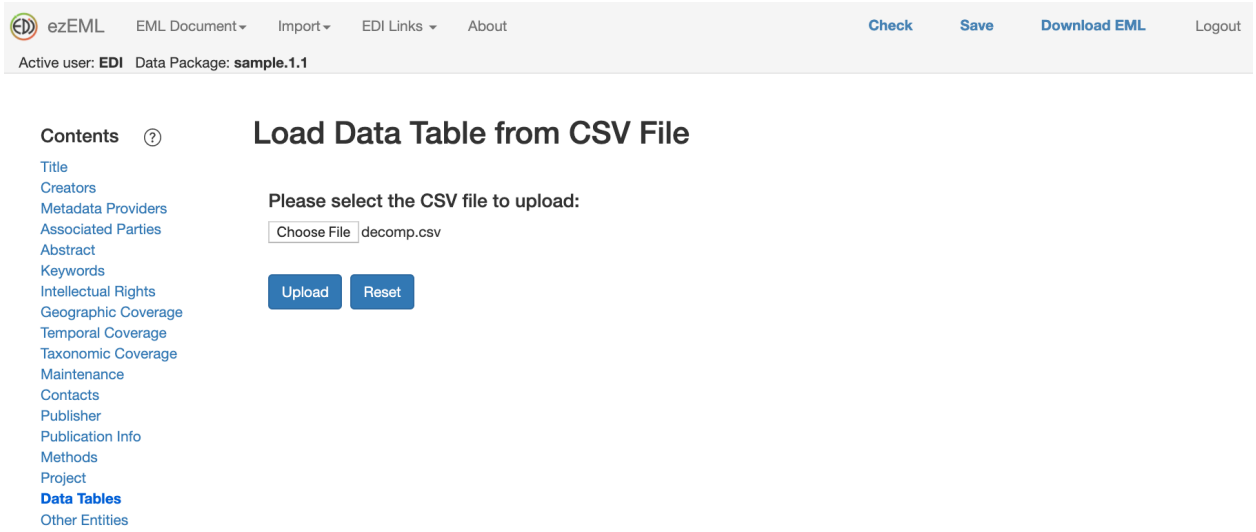
Uploading Data Tables

A data package typically contains one or more data tables. If so, these data tables need to be described in the EML metadata. Entering the needed metadata by hand can be laborious and error prone. ezEML assists in this process by letting you upload your data tables in CSV (comma-separated value) format. ezEML then infers many of the needed metadata attributes for you.

To begin uploading data tables, click **Data Tables** in the **Contents** list to go the Data Tables page. It will look something like this:

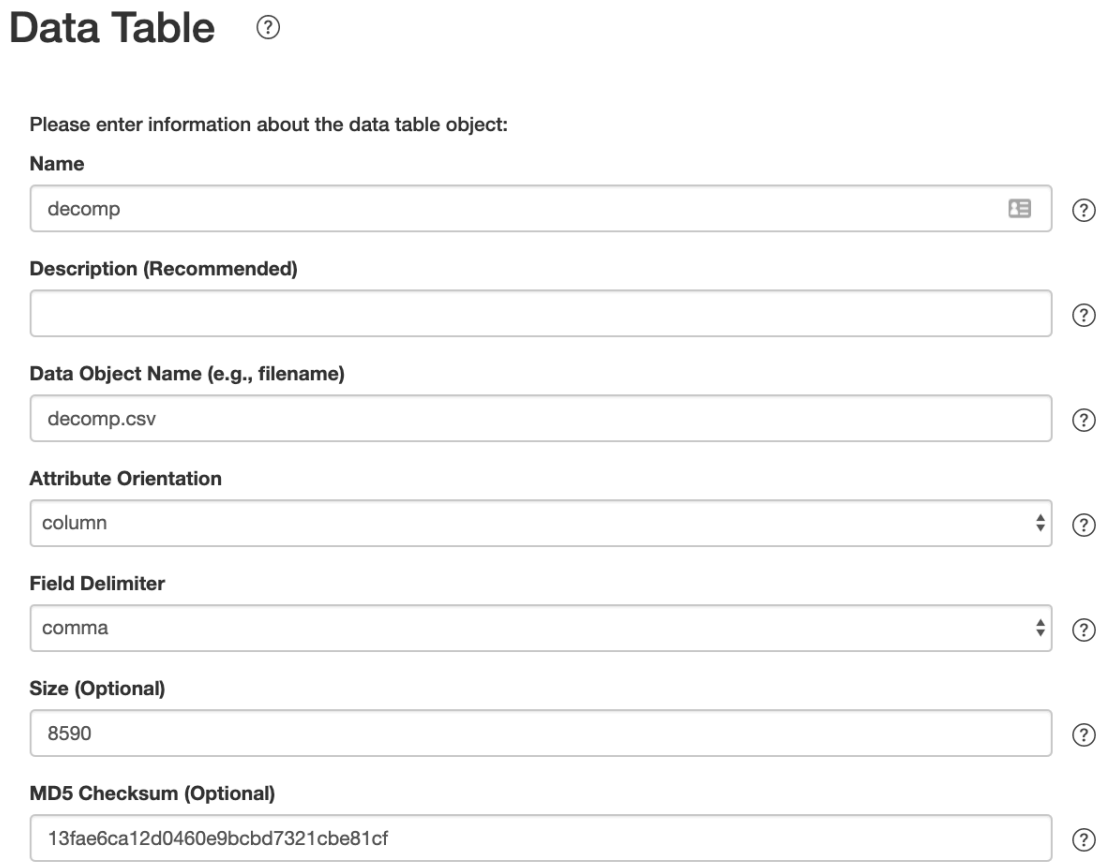


We want to load the data table from a CSV file, not add it from scratch, so we click the button for that. This takes us to a page where we can select the CSV file to upload:

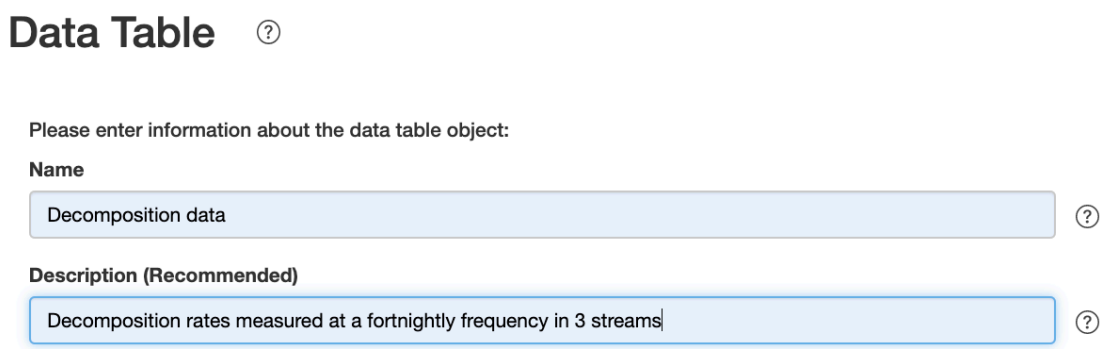


In this example, we've selected a file called **decomp.csv**. We click **Upload** to cause the file to be uploaded and analyzed by ezEML.

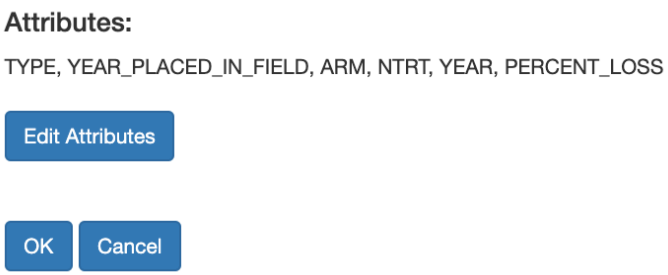
ezEML will display a page that contains the metadata pertaining to the data table as a whole. In part, it looks like:



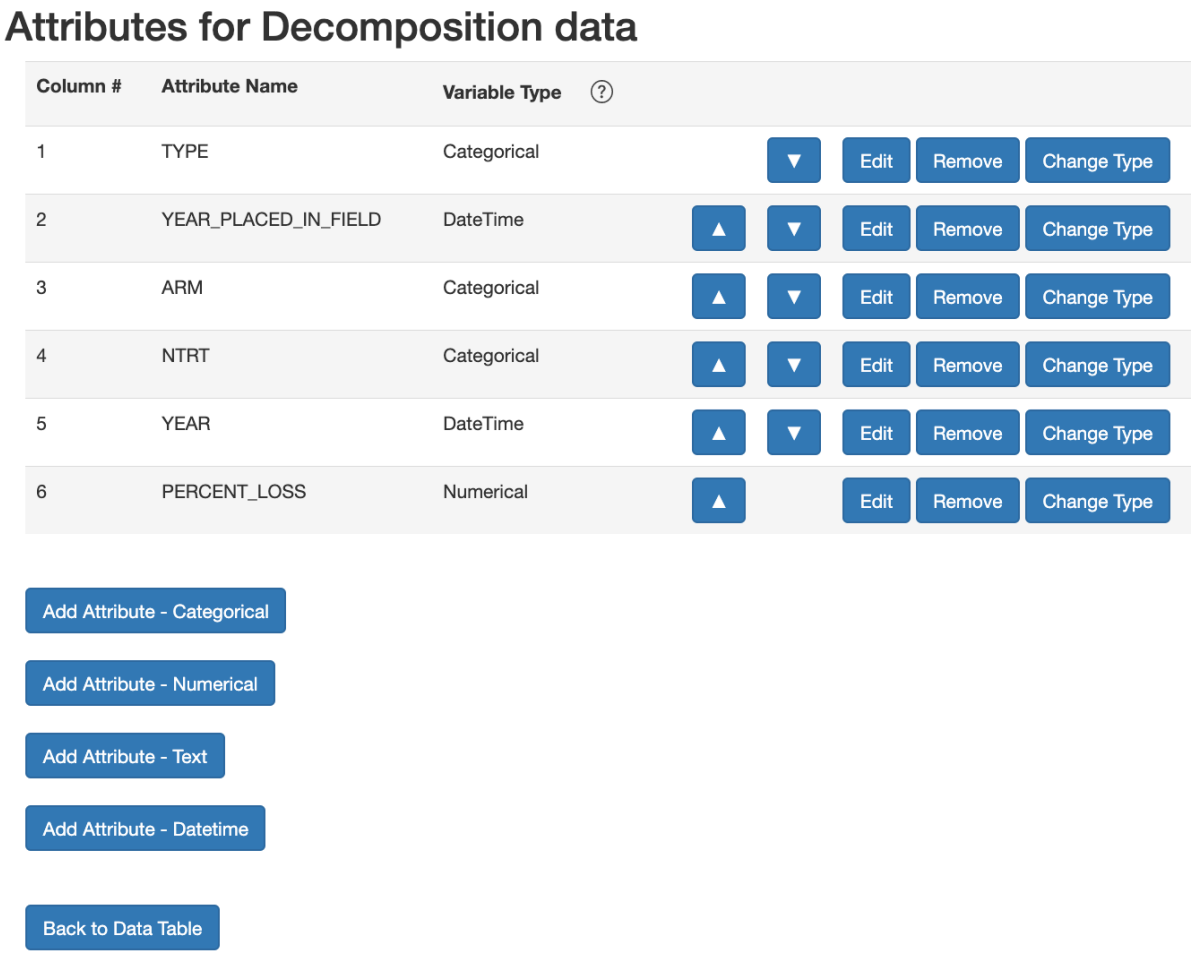
You see that ezEML has filled in a number of the values for you. It has done its best based on the CSV file. You will probably want to change some values and add others. In the screenshot above, for example, you might change **Name** and **Description** to something like:



At the bottom of the form is information about the data table's **Attributes**, which correspond to the columns of the table. In this example, we have:



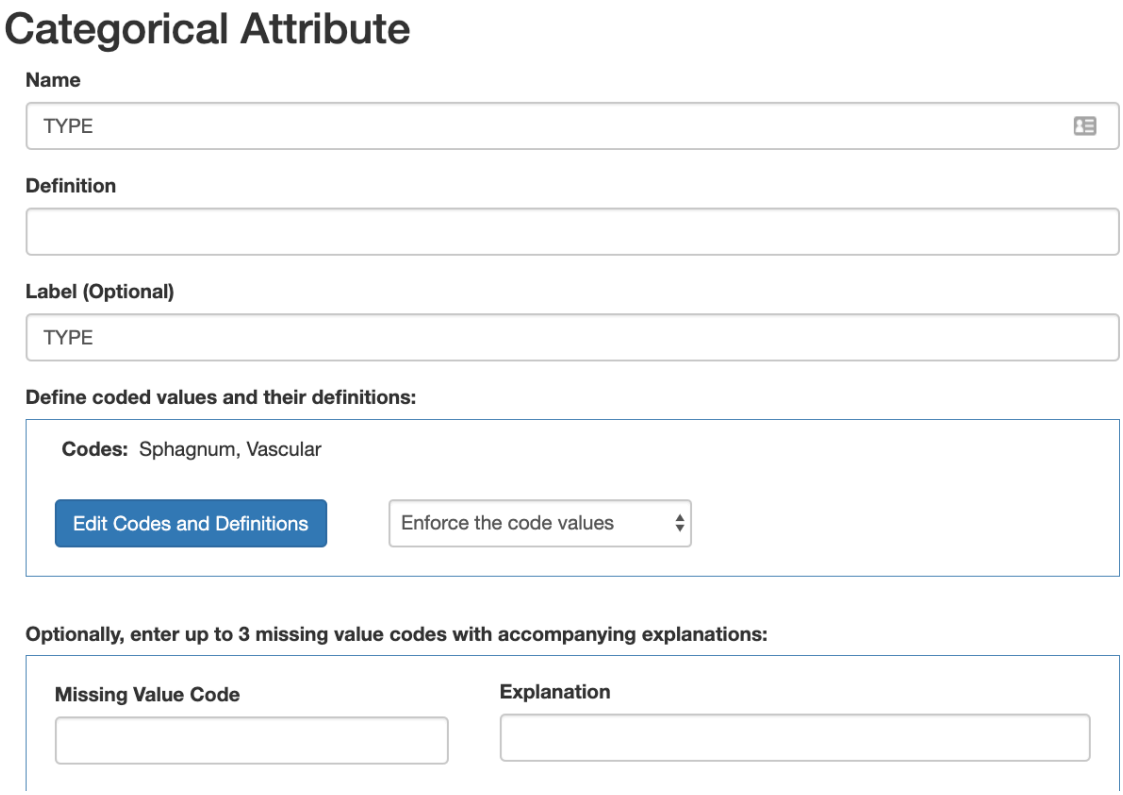
ezEML does its best to infer the needed metadata for the attributes, but you will need to do some tweaking. Clicking **Edit Attributes** brings up a page like:



Data table attributes can have one of four **Variable Types**: Categorical, Numerical, Text, or DateTime. ezEML infers the variable type based on the values in the uploaded data table, but there may be cases where you want to override the variable type inferred by ezEML for a given

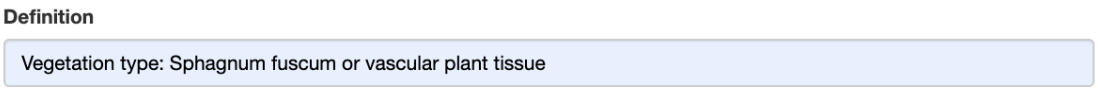
attribute. To do so, click the **Change Type** button for the attribute in question and select the desired variable type.

Let's suppose, though, that you are happy with the variable types as shown. You will still need to edit the attributes to fill in metadata that ezEML is unable to infer from the CSV file. In the screenshot above, suppose you click **Edit** for the TYPE attribute. You will see a screen like:

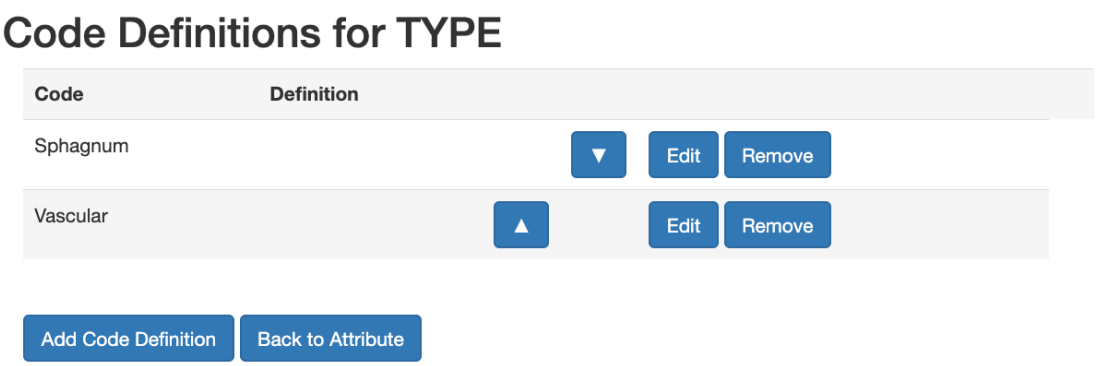


(Only part of the form is shown here.)

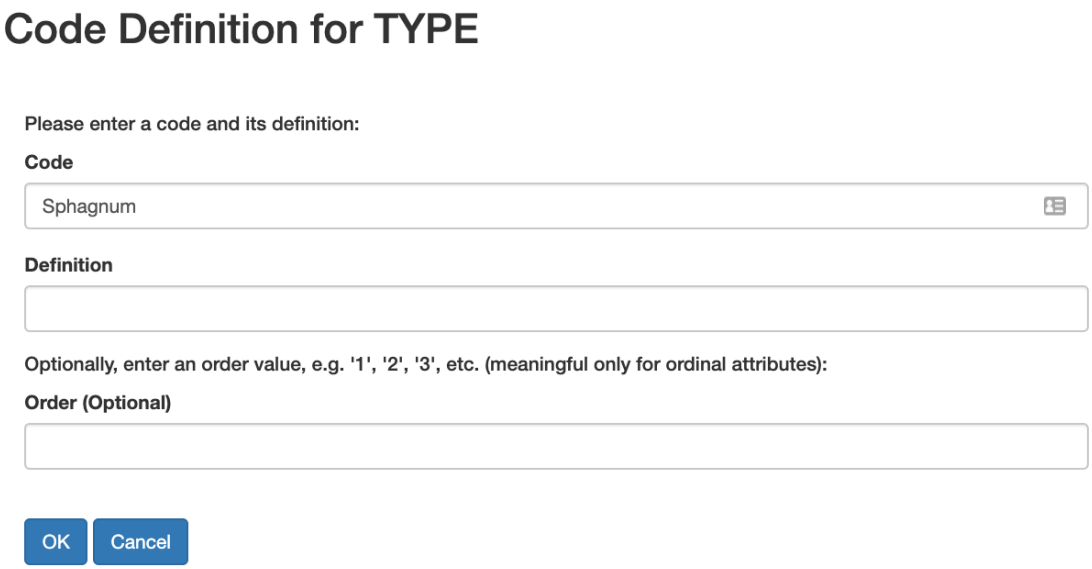
ezEML has used the column name (TYPE, in this case) for the **Name** and **Label** fields. Change them, as desired. The attribute's **Definition** is not something ezEML can infer from the data table, but it is required. We can fill in something like:



The TYPE variable is a categorical variable with two category codes: Sphagnum and Vascular. ezEML is able to pick up the codes from the table, but it cannot supply the code definitions. Click **Edit Codes and Definitions** to go to a page where the codes are listed:



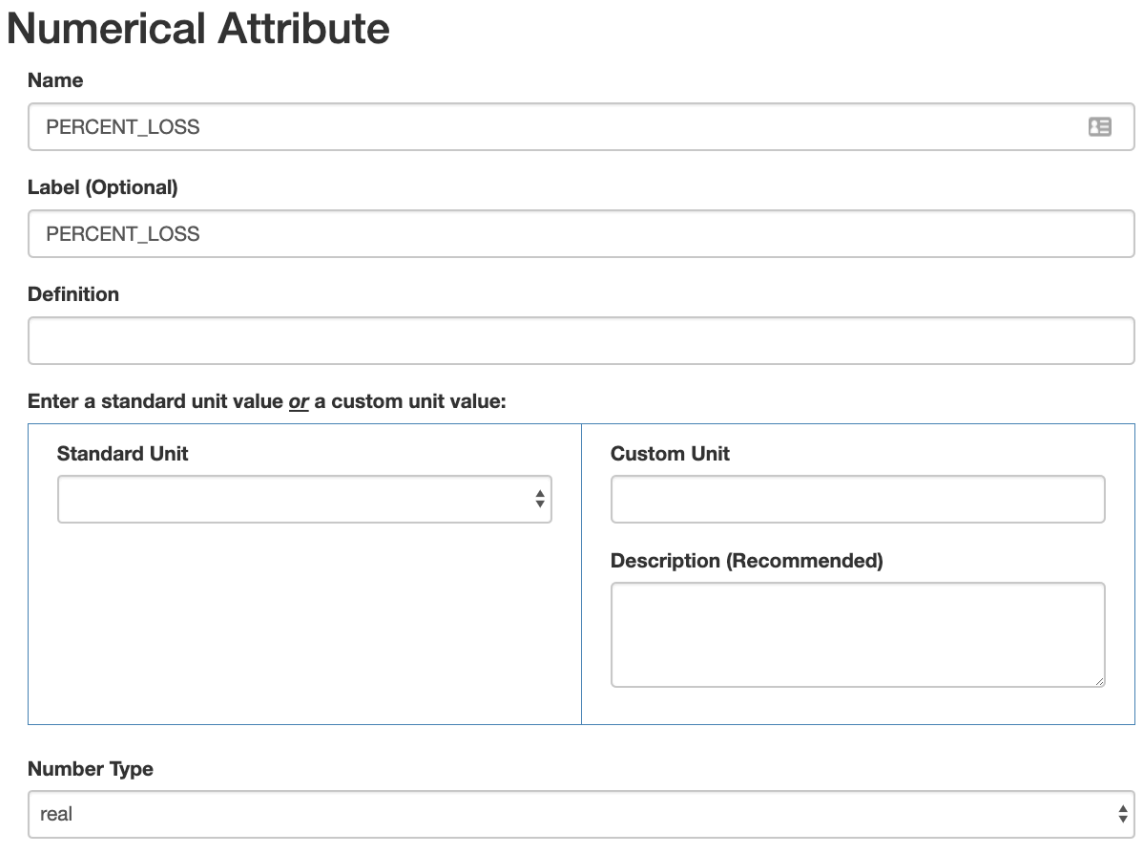
We see that the definitions are missing for the codes, so we click **Edit** for each, bringing up forms like:



Enter the definition for the code and click OK. Do that for each code. When you are done editing the attribute, click OK to return to the attribute list.

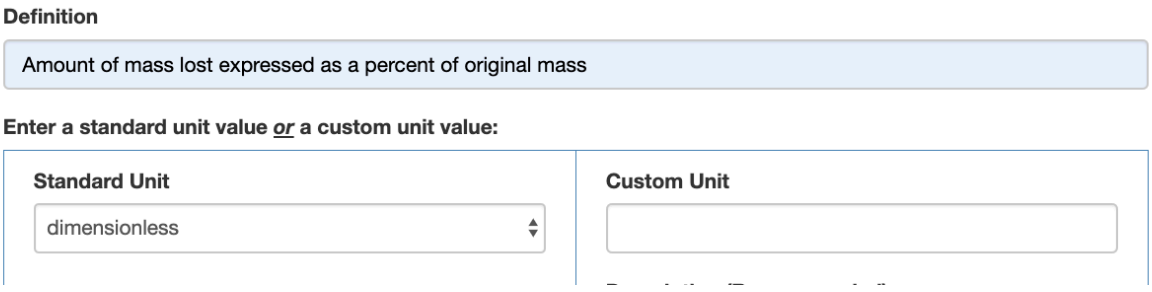
Proceeding in this way, one attribute at a time, you can supply the attribute metadata required by EML.

In our example, there was a numerical attribute called PERCENT_LOSS. Numerical attributes require their units to be specified. Click **Edit** for the PERCENT_LOSS attribute to bring up a form like:

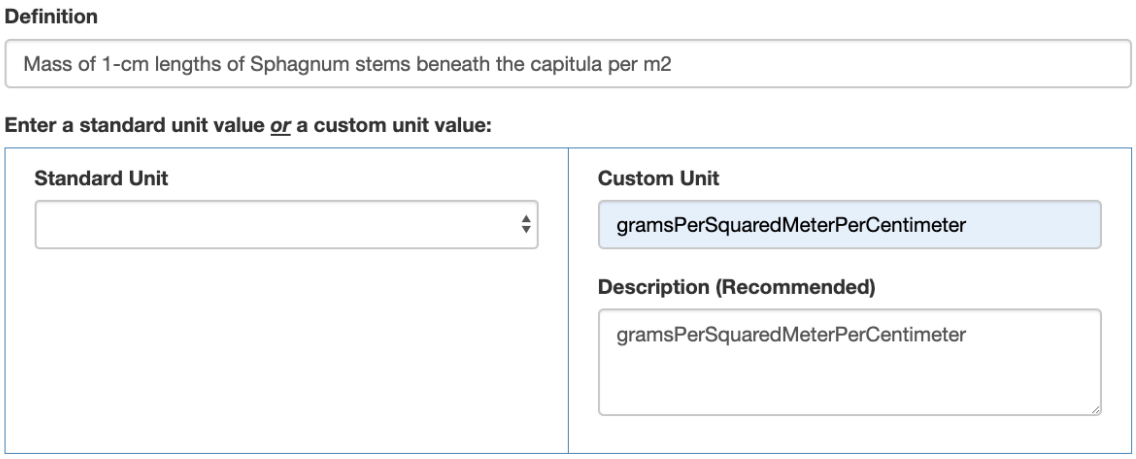


(Only part of the form is shown here.)

EML defines a list of standard units, mainly from the SI standard. If the appropriate unit for the variable in question is a standard unit, select it from the list. In this example, PERCENT_LOSS is a dimensionless percentage, so we select dimensionless from list – and we've also filled in the attribute's **Definition**:



In some cases, the variable's unit is not among the standard units. In such a case, fill in a **Custom Unit** and **Description**, as in this example taken from a different data table:



How do you know when you've made all of the needed modifications to an uploaded data table's metadata to satisfy EML's requirements and recommendations? ezEML's **Check** feature can check the metadata for you. See **Checking Your Metadata** in the User Guide.