Interactive comment on “Mapping hydrological environments in central Amazonia: ground validation and surface model based on SRTM DEM data corrected for deforestation” by G. M. Moulatlet et al.

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Editors note: As authors and readers know, ESSD often involves graduate students in the review process. They learn the evaluation process, they gain familiarity with open data concepts and they generally provide a skilful and very thorough test of the data themselves, often using the latest freeware access and display tools. intrigued by this data set, I recruited a terrestrial ecology graduate student to download and examine the data files. I copy below, with only two modifications (experienced colleague) to remove a name, a verbatim assessment from that student:

"All done with ArcMap 10.1:

The first link (SRTM DEM) opens perfectly, knows its datum and spatial reference, and looks cool even with the default grayscale color map.

The second link leads to 3 files (in addition to metadata), a .shp, a .shx, and a .dbf. These three files should be the major components of a shapefile, however, to work, they must have the same name (the number in the name goes from 320 to 322 in the 3 files) Arc failed to open the shapefile until (experienced colleague) pointed this out. Changing the names to make them consistent allowed the shapefile to be opened. However the shapefile lacks spatial reference information: it projects properly using the spatial reference of the raster data, but if one was trying to use the shape alone, one would not know the correct reference?

The third link leads to a list of .tif and .tfw files. I am not sure what a .tfw is, but the .tif files work perfectly as with the .tif from the first link.

The fourth link leads to a csv, which can easily be used to create point features from coordinates. It appears to project properly using the same spatial reference as the raster / .tif data, but if the raster data was not used, the spatial reference would be unknown.

If I were trying to use this dataset, I would be able to, although I required a hint from a much more experienced user (regarding renaming the shapefile components: "You would have known that if you used GIS in the '80s like I did" - experienced colleague). I am not exactly a powerful GIS user, having no formal training, using only one program, and using it more as a platform for python scripts than for it's built in features. For a similar level Arc user, the shapefile and points could be better packaged. Although common, Arc (ESRI) products are very expensive, and I cannot comment on using this data with any other GIS program.

I think it is possible that properly understanding and using the metadata (called .eml
but really .xml) would clear up all of these issues, but while I can add the metadata to the dataset after importing it into Arc, I do not see how to use it to guide in importing.

If I were the end user, packaging the shapefile files (including a .prj which defines projection) together in a zip (easily done from Arc) would make the data easier to use. The points could also be packaged in a similar way. However, these packaged files might be less universal (more specific to Arc). At a minimum, the shapefile names should be corrected to match.

Interactive comment on Earth Syst. Sci. Data Discuss., 7, 441, 2014.