**File "paleon\_reg-env-dri\_biome\_type.nc4"**

File type: Hierarchical Data Format, version 5

netcdf file:~/paleon\_reg-env-dri\_biome\_type.nc4 {

dimensions:

lon = 80;

lat = 30;

variables:

double lon(lon=80);

:standard\_name = "longitude";

:long\_name = "longitude at center of pixel";

:units = "degrees\_east";

double lat(lat=30);

:standard\_name = "latitude";

:long\_name = "latitude at center of pixel";

:units = "degrees\_north";

double crs;

:long\_name = "coordinate reference system definition";

:grid\_mapping\_name = "latitude\_longitude";

:longitude\_of\_prime\_meridian = 0.0; // double

:semi\_major\_axis = 6378137.0; // double

:inverse\_flattening = 298.257223563; // double

byte biome(lat=30, lon=80);

:long\_name = "Biome Classification";

:grid\_mapping = "crs";

:flag\_values = "1b, 2b, 3b, 4b, 5b";

:flag\_meanings = "Broadleaf-Deciduous\_Forest Mixed\_Broadleaf-Deciduous\_Needleleaf-Evergreen Needleleaf-Evergreen\_Forest Savanna\_Shrublands Grasslands";

// global attributes:

:Conventions = "CF-1.8";

:title = "Biome Classification | PalEON Regional Environmental Drivers";

:summary = "A one-time measurement of the dominant biome type in each grid cell. The original biome classification is from SYNMAP (MsTMIP biome driver).";

:comment = "The PalEON biome driver is derived from SYNMAP (Jung et al. 2006) which is used by MsTMIP. Crosswalk between SYNMAP and PalEON generally followed previous for SiBCASA (Schaefer et al. 2015). SYNMAP-PFT crosswalk was modified from Poulter et al. 2015. In both cases, crops were equated with grassland and urban area ignored. Mosaic tree-shrub or tree-grass/crop were treated as the corresponding LCCS forest types (<15% forest cover) and treated shrub and grass as equivalent. The current product keeps the bare ground cover, and models that do not have bare ground should reallocate that proportion accordingly.";

:references = "Jung et al. 2006, <https://doi.org/10.1016/j.rse.2006.01.020>; Schaefer et al. 2014, <https://doi.org/10.3334/ORNLDAAC/1220>; Poulter et al. 2015, <https://doi.org/10.5194/gmd-8-2315-2015>";

:publisher\_name = "Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC)";

:publisher\_url = "https://daac.ornl.gov";

:publisher\_email = "uso@daac.ornl.gov";

}

**File "paleon\_reg-env-dri biome\_pft.nc4"**

File type: Hierarchical Data Format, version 5

netcdf file:~/paleon\_reg-env-dri\_biome\_pft.nc4 {

dimensions:

lon = 80;

lat = 30;

pft = 10;

variables:

double lon(lon=80);

:standard\_name = "longitude";

:long\_name = "longitude at center of pixel";

:units = "degrees\_east";

double lat(lat=30);

:standard\_name = "latitude";

:long\_name = "latitude at center of pixel";

:units = "degrees\_north"; double crs;

:long\_name = "coordinate reference system definition";

:grid\_mapping\_name = "latitude\_longitude";

:longitude\_of\_prime\_meridian = 0.0; // double

:semi\_major\_axis = 6378137.0; // double

:inverse\_flattening = 298.257223563; // double

byte pft(pft=10);

:long\_name = "Plant Functional Type";

:grid\_mapping = "crs";

:flag\_values = "1b, 2b, 3b, 4b, 5b, 6b, 7b, 8b, 9b, 10b";

:flag\_meanings = "TreeBroadEvergreen TreeBroadDeciduous TreeNeedleEvergreen TreeNeedleDeciduous ShrubBroadEvergreen ShrubBroadDeciduous ShrubNeedleEvergreen ShrubNeedleDeciduous Grass Bare";

float pft\_frac(pft=10, lat=30, lon=80);

:long\_name = "Plant Functional Type (PFT) Fractional overage";

:units = 1;

:\_FillValue = -9999; // double

:comment = "Relative area of a PFT within the grid cell";

:grid\_mapping = "crs";

// global attributes:

:Conventions = "CF-1.8";

:title = "Plant Functional Type (PFT) Classification | PalEON Regional Environmental Drivers";

:summary = "A one-time measurement of the fraction of plant functional types in each grid cell based on smoothing over a 5 deg x 5 deg area.";

:comment = "The PalEON biome driver is derived from SYNMAP (Jung et al. 2006) which is used by MsTMIP. Crosswalk between SYNMAP and PalEON generally followed previous for SiBCASA (Schaefer et al. 2015). SYNMAP-PFT crosswalk was modified from Poulter et al. 2015. In both cases, crops were equated with grassland and urban area ignored. Mosaic tree-shrub or tree-grass/crop were treated as the corresponding LCCS forest types (<15% forest cover) and treated shrub and grass as equivalent. The current product keeps the bare ground cover, and models that do not have bare ground should reallocate that proportion accordingly.";

:references = "Jung et al. 2006, <https://doi.org/10.1016/j.rse.2006.01.020>; Schaefer et al. 2014, <https://doi.org/10.3334/ORNLDAAC/1220>; Poulter et al. 2015, <https://doi.org/10.5194/gmd-8-2315-2015>";

:publisher\_name = "Oak Ridge National Laboratory Distributed Active Archive Center (ORNL DAAC)";

:publisher\_url = "https://daac.ornl.gov";

:publisher\_email = "uso@daac.ornl.gov";

}