LandWeb_preamble

09 December 2018

Overview

Set up study areas and parameters for LandWeb simulations.

Parameters

Provide a summary of user-visible parameters.

paramName	paramClass	default	min	max	paramDesc
bufferDist	numeric	25000	20000	1e+05	Study area buffer distance (m) used to make studyArea.
bufferDistLarge	numeric	50000	20000	1e+05	Study area buffer distance (m) used to make studyAreaLarge.
friMultiple	numeric	1	0.5	2	Multiplication factor for adjusting fire return intervals.
mapResFact	numeric	1	1	10	The map resolution factor to use with raster::disaggregate to reduce pixel size below 250 m. Should be one of 1, 2, 5, 10, which correspends to pixel size of 250m, 125m, 50m, 25m, repsectively.
minFRI	numeric	40	0	200	The value of fire return interval below which, pixels will be changed to NA, i.e., ignored
runName	character	NA	NA	NA	A description for run; this will form the basis of cache path and output path
treeClassesLCC	numeric	1, 2, 3,....	0	39	The classes in the LCC2005 layer that are considered 'trees' from the perspective of LandR-Biomass
treeClassesToReplace	numeric	34, 35, 36	0	39	The transient classes in the LCC2005 layer that will become 'trees' from the perspective of LandR-Biomass (e.g., burned)

Data dependencies

Input data

Description of the module inputs.

objectName	objectClass	desc	sourceURL
canProvs	SpatialPolygonsDataFrame	Canadian provincial boundaries shapefile	NA

Output data

Description of the module outputs.

objectName	objectClass	desc
CC TSF	RasterLayer	Time since fire (aka age) map derived from Current Conditions data.
fireReturnInterval	RasterLayer	fire return interval raster
LandTypeCC	RasterLayer	Land Cover Classification map derived from Current Conditions data.
LCC2005	RasterLayer	Land Cover Classification map derived from national data.
ml	map	'map' object containing study areas, reporting polygons, etc. for post-processing.
LCC	RasterLayer	A key output from this module: it is the result of LandR::overlayLCCs on LCC2005 and LandTypeCC
nonTreePixels	integer	NA
rasterToMatch	RasterLayer	NA
rasterToMatchReporting	RasterLayer	NA
rstFlammable	RasterLayer	NA
sppColorVect	character	A named vector of colors to use for plotting. The names must be in 'sim$sppEquiv[[sim$sppEquivCol]]', and should also contain a color for 'Mixed'
sppEquiv	data.table	table of species equivalencies. See 'LandR::sppEquivalencies_CA'.
studyArea	SpatialPolygonsDataFrame	NA
studyAreaLarge	SpatialPolygonsDataFrame	Polygon to use as the parametrisation study area. Note that 'studyAreaLarge' is only used for parameter estimation, and can be larger than the actual study area used for LandR simulations (e.g, larger than 'studyArea' in LandR Biomass_core).
studyAreaReporting	SpatialPolygonsDataFrame	multipolygon (typically smaller/unbuffered than 'studyAreaLarge' and 'studyArea' in LandR Biomass_core) to use for plotting/reporting.

Links to other modules

Originally developed for use with the LandR Biomass suite of modules, with LandMine fire model.