Package ‘prioritizrdata’

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Description

The `prioritizrdata` package is a supplemental package that contains example datasets for conservation planning. It is intended to be used alongside the `prioritizr` package—a package for building and solving systematic conservation prioritization problems using integer linear programming (ILP) techniques—and provides little functionality itself.

Details

This package contains the following datasets:

- `tas_data` This data set was obtained from the "Introduction to Marxan" course and was originally part of a larger spatial prioritization performed under contract to Australia’s Department of Environment and Water Resources. This data set contains vector-based planning unit data and data for the spatial distribution of 62 vegetation classes in Tasmania, Australia. Refer to the Tasmania vignette in the `prioritizr` package for a worked example with this dataset.

- `salt_data` This dataset is from an online Marxan-based planning tool created for the Coastal Douglas-fir Conservation Partnership (CDFCP). It contains raster-based planning unit data and the data for the spatial distributions of five key ecological communities in the area. Refer to the Salt Spring Island vignette in the `prioritizr` package for a worked example with this dataset.

**salt_data** Salt Spring Island conservation planning data

Description

This data was obtained as part of an online Marxan-based planning tool created for the Coastal Douglas-fir Conservation Partnership (CDFCP; Schuster et al. 2017). For a worked example with this dataset, refer to the Salt Spring vignette. The scenario is intended to provide an example of how raster planning unit data can be used in the `prioritizr` package.
Usage

data(salt_features)
salt_pu
salt_features

Format

salt_features RasterStack-class object
salt_pu RasterLayer-class object.

Details

The data set contains the following items:

salt_pu Planning unit data. A single band RasterLayer-class object where each one hectare pixel contains the monetary cost of acquiring the area (BC Land Assessment 2015).

salt_features Biodiversity feature data. The probability of occurrence commensal of five key ecological communities found on Salt Spring island. Each layer in the RasterStack-class object represents a different community type. These classes are old forest (1), savanna (2), wetland (3), shrub (4), and a layer representing the inverse probability of occurrence of human commensal species (5). For a given layer, the values indicate the composite probability of encountering the suite of bird species most commonly associated with that community type.

References


Examples

# load data
data(salt_pu, salt_features)

# plot data
plot(salt_pu)
plot(salt_features)
**tas_data**

*Tasmanian conservation planning data*

**Description**

This data set was obtained from the "Introduction to Marxan" course and was originally part of a larger spatial prioritization performed under contract to Australia’s Department of Environment and Water Resources (Klein et al. 2007).

**Usage**

data(tas_features)

tas_pu

tas_features

**Format**

**tas_features** *RasterStack-class* object

**tas_pu** *SpatialPolygonsDataFrame* object.

**Details**

The data set contains the following items:

**tas_pu** Planning unit data. The attribute table has three columns containing unique identifiers ("id"), unimproved land values ("cost"), and their existing level of protection ("status"). Units with 50 % or more of their area contained in protected areas are associated with a status of 2, otherwise they are associated with a value of 0.

**tas_features** The distribution of 62 vegetation classes in Tasmania, Australia. Each layer in the stack represents a different vegetation class. For a given layer, cells indicate the presence (value of 1) or absence (value of 0) of the vegetation class in an area.

**References**


**Examples**

# load data
data(tas_pu, tas_features)

# plot data
plot(tas_pu)
plot(tas_features)
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