Package 'KappaV'

August 29, 2016

Type Package

Title Calculates ``vectorial Kappa'', an index of congruence between patchy mosaics.

Version 0.3

Date 2014-05-05

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Description this package allows to quantify the congruence between two patchy mosaics or landscapes. This ``vectorial Kappa'' approach extends the principle of Cohen's Kappa index by calculating areas of intersected patches between two mosaics rather than agreement between pixels. It provides an exact alternative for patchy mosaics when a Kappa index is needed.

License GPL (>= 2)

URL http://www.vincentbonhomme.fr/KappaV

Depends PresenceAbsence, maptools, rgeos, sp

NeedsCompilation no

Repository CRAN

Date/Publication 2014-05-06 07:04:00

R topics documented:

KappaV *Calculates vectorial kappa between two shapes*

Description

This function calculates the vectorial Kappa, the associated standard deviation and also returns the confusion matrix calculated between two vectorial landscapes.

Calculates vectorial Kappa, i.e. congruence between two vectorial landscapes.

Usage

```
KappaV(shp1.path, shp2.path, shp1.fieldID = "ID",
  shp2.fieldID = shp1.fieldID, shp1.fieldOS = "OS",
  shp2.fieldOS = shp1.fieldOS, plot = FALSE)
```

Arguments

`shp1.path`	`character`. The path to the first shape file.
`shp2.path`	`character`. The path to the second shape file.
`shp1.fieldID`	`character`. The column name in the .dbf file to indicate the polygons IDs.
`shp2.fieldID`	`character`. The column name in the .dbf file to indicate the polygons IDs.
`shp1.fieldOS`	`character`. The column name in the .dbf file to indicate the nominal variable of interest.
`shp2.fieldOS`	`character`. The column name in the .dbf file to indicate the nominal variable of interest.
`plot`	`logical`. Whether to plot the two landscapes.

Details

If not specified the default parameters are `shp1.fieldID = "ID"`, `shp2.fieldID = shp1.fieldID`, `shp1.fieldOS = "OS"`,`shp2.fieldOS = shp1.fieldOS` and `plot = FALSE`

Value

A list with two components: `confusion.matrix`: the confusion matrix with the corresponding areas. and `$kappa.v`: a numeric with two values: `$Kappa` (the value of vectorial Kappa) and `$Kappa.sd` (the associated standard deviation)

References

Paper submitted.

Paper submitted.

See Also

Kappa in the PresenceAbsence package that handles the Kappa and its SD calculation from the confusion matrix.

Have a look to the package's vignette: http://www.vincentbonhomme.fr/KappaV

KappaV' homepage : http://www.vincentbonhomme.fr/KappaV with tutorials and hotline.

KappaV' GitHub repo : https://github.com/vbonhomme/KappaV to contribute, among other things.

Examples

```
# Have a look to package's vignette above.
```

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