

Package ‘oceanic’

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Type Package

Title Location Identify Tool

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Author shiao chih hao [aut, cre, ctb],
chang shu ting [aut, ctb]

Maintainer shiao chih hao <chihhao@ofdc.org.tw>

Description Determine the sea area where the fishing boat operates.
The latitude and longitude of geographic coordinates are used to match oceanic areas and economic sea areas.

You can plot the distribution map with dotplot() function.

Please refer to Flanders Marine Institute (2020) <doi:10.14284/403>.

License GPL (>= 2)

Depends R (>= 3.5.0)

Imports sf, sp, rgdal, broom, rgeos, ggplot2, maps, spData

Encoding UTF-8

RoxygenNote 7.2.1

LazyData true

Collate 'idfocan.R' 'idfeez.R' 'data.R' 'dotplot.R' 'idfland.R'
'idfcode.R' 'idfport.R' 'sixtytoten.R' 'idfoutliers.R'

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dotplot	<i>dotplot</i>
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Description

This function allows you to draw data distribution geographically with EEZ map Function from a numeric vector.

Usage

```
dotplot(
  lona,
  lata,
  map = "ALL",
  eez = TRUE,
  grid = FALSE,
  color = "#FF0000",
  size = 1,
  shape = 16
)
```

Arguments

lona	Input the longitude.
lata	Input the latitude.
map	default is "ALL", Other possible options is "PAC", "IND" and "ATL".
eez	default is TRUE, when TRUE show the EEZ map.
grid	default is FALSE, when TRUE show the 5 degree grid.
color	default is "#FF0000", define the color of points.
size	default is 1, define the size of points.
shape	default is 16, define the shape of points.

Value

the plot of lona and lata.

Examples

```
dotplot(141,23)
```

eez_rg	<i>Eez Coefficients</i>
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Description

Predictor feature coefficients as published in paper.

Usage

```
eez_rg
```

Format

eez_rg data.frame with 2 variables: geneName, coef

idfcode	<i>idfcode</i>
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Description

This function allows you to convert the location to 4 digital code

Usage

```
idfcode(lon, lat)
```

Arguments

lon	Input the longitude.
lat	Input the latitude.

Examples

```
idfcode(22,-5)
```

<code>idfeez</code>	<i>idfeez</i>
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Description

This function allows you to identify location in which EEZ from a numeric vector.

Usage

```
idfeez(lon, lat, ac = TRUE)
```

Arguments

<code>lon</code>	Input the longitude.
<code>lat</code>	Input the latitude.
<code>ac</code>	logical. If TRUE will return full name of EEZ.

Examples

```
idfeez(141,23)
```

<code>idfland</code>	<i>idfland</i>
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Description

This function allows you to identify location in which land or ocean.

Usage

```
idfland(lon, lat)
```

Arguments

<code>lon</code>	Input the longitude.
<code>lat</code>	Input the latitude.

Examples

```
idfland(22,-5)
```

idfocean	<i>idfocean</i>
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Description

Return The Pacific Ocean(PAC), Indian Ocean(IND) or Atlantic Ocean(ATL) of your coordinate.

Usage

```
idfocean(lon, lat)
```

Arguments

lon	Input the longitude.
lat	Input the latitude.

Value

the ocean of lon and lat.

Examples

```
idfocean(125,20)
```

idfoutliers	<i>idfoutliers</i>
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Description

This function help you to find out the Outliers

Usage

```
idfoutliers(x, i = 3, min = 0.25, max = 0.75, na.rm = TRUE)
```

Arguments

x	Input the data filed(should be a list and the data format must be numeric)
i	Input the multiple of IQR(default is 3)
min	probabilities of values between 0 and 1(default is 0.25)
max	probabilities of values between 0 and 1(default is 0.75)
na.rm	removes the NA values (default value is TRUE)

Examples

```
dt <- data.frame(x=c(1,1,1,1,1,1,1,1,1,1,10))
idfoutliers(dt$x)
```

idfport	<i>idfport</i>
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Description

This function allows you to identify port name from a numeric vector.

Usage

```
idfport(lon, lat)
```

Arguments

lon	Input the longitude.
lat	Input the latitude.

Examples

```
idfport(121.8006, 25.14065)
```

port	<i>port position</i>
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Description

define the position of port in the world

Usage

```
port
```

Format

port data.frame with 2 variables: row.names, id

`sixtytoten`

sixtytoten

Description

This function allows you to transfer the coordinate system from sexagesimal to decimal

Usage

`sixtytoten(num)`

Arguments

`num` Input a value of longitude or latitude.

Examples

`sixtytoten(121.49)`

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