Package 'abalone'

June 12, 2025

Title Climate refugia for red abalone

Version 0.0.0.9000

Description This package provides functions used for defining and vizualising climate refugia for red abalone across California. The project is funded by the California 5th assessment on climate change and the PI is Mikaela Provost.

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RoxygenNote 7.3.2

Imports raster, sf, terra

Suggests knitr, rmarkdown

VignetteBuilder knitr

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Contents

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read_shp	*Read in shapefiles provided by this package*

Description

This function uses the sf package to read one of the included shapefiles bundled with the package. Jessie has standardized these.

Usage

```
read_shp(shape = c("usa", "eez", "contshelf50", "contshelf200", "mpas"))
```

Arguments

shape   One of the default shapefiles to use. Options are:

- "usa" – The contiguous United States land boundary.
- "eez" – The U.S. West Coast EEZ
- "contshelf50" – The 50 m isobath
- "contshelf200" – The 200m isobath (i.e., the continental shelf)
- "mpas" – Californian marine protected areas

Details

The shapefiles are stored in /extdata.

Available shapefiles:

- **usa**: usa_contiguous.shp
- **eez**: westcoast_eez.shp. Derived from 'Marine Regions' dataset: https://www.marineregions.org/
- **contshelf50**: cont_shelf_50m.shp. Derived from GEBCO 2024
- **contshelf200**: cont_shelf_200m.shp. Derived from GEBCO 2024.
- **mpas**: california_mpas.shp. From CDFW dataset: 'California Marine Protected Areas ds582', representing all MPAs as of 1 Jan, 2019.

Value

An sf object of the chosen shapefile